

The Chicago medical recorder

Chicago Medical Society

THE
CHICAGO MEDICAL
RECORDER

VOL. XXXV



JANUARY-DECEMBER, 1913

CHICAGO:
THE MEDICAL RECORDER PUB. CO.
PULLMAN BUILDING

EDITORIAL BOARD.

DR. E. WYLLIS ANDREWS,

Professor of Surgery Northwestern University Medical School Surgeon to Mercy Hospitals.

DR. FRANK T. ANDREWS,

Professor of Clinical Gynecology, Northwestern University Medical School; Gynecology to Mercy and Wesley Hospitals.

DR. WALTER S. BARNES,

Assistant Professor of Gynecology Northwestern University Medical School; Attending Gynecologist to Mercy Hospital.

DR. W. L. BAUM,

Professor of Skin and Venereal Diseases Post-Graduate Medical School; Dermatologist to St. Luke's and Deaconess Hospitals; Attending Physician for Contagious and Infectious Diseases Cook Co. Hospital; Chairman of Attending Staff Cook Co. Hospital.

DR. CHARLES C. BEERY,

Late Marine Hospital Service.

DR. RUFUS W. BISHOP,

Late Professor of Dermatology in the Northwestern University Medical School.

DR. JAMES BURRY,

Chief Surgeon Illinois Steel Co.

DR. HENRY T. BYFORD,

Professor of Gynecology University of Illinois Medical Department; Gynecologist to the Woman's, Michael Reese, Provident and Lying-In Hospitals.

DR. FRANK CARY,

Obstetrician St. Luke's and Michael Reese Hospitals.

DR. ARCHIBALD CHURCH,

Professor of Nervous and Mental Diseases Northwestern University Medical School; Neurologist St. Luke's, Mercy and Wesley Hospitals.

DR. E. J. DOERING,

President Medico-Legal Society of Chicago, Ex-President Chicago Medical Society, Ex-President Chicago Gynecological Society, late Surgeon U. S. Marine Hospital Service, Consulting Physician Chicago Lying-In Hospital.

DR. HERBERT H. FROTHINGHAM,

DR. L. A. GREENSFELDER,

Attending Surgeon to Michael Reese Hospital.

DR. JAMES A. HARVEY,

Associate Staff St. Luke's Hospital; Director Stock Yards Dispensary and Chicago Tuberculosis Institute; Advisory Staff Chicago Municipal Sanitarium.

DR. JUNIUS C. HOAG,

Obstetrician St. Luke's Hospital; Member British Gynecological Society; late Professor of Obstetrics Northwestern University Medical School.

DR. FRANK S. JOHNSON,

Emeritus Dean and Professor of Medicine Northwestern University Medical School, Physician Michael Reese Hospital.

DR. FRANKLIN H. MARTIN,

Professor of Gynecology Post-Graduate Medical School, Gynecologist to Woman's, Post-Graduate and Charity Hospitals.

DR. JOSEPH MATTESON,

Ex-President Medico-Legal Society of Chicago, Treasurer Medico-Legal Society.

DR. FREDERICK MENGE,

Professor of Laryngology and Rhinology Northwestern University Medical School; Laryngologist to Wesley, Mercy, Chicago Baptist and Provident Hospitals.

DR. CHARLES H. PARKES,

Consulting Surgeon Cook Co. Hospital; Surgeon Olivet Settlement; Secretary Chicago Medical Society.

DR. SAMUEL C. PLUMMER,

Clinical Professor of Surgery Northwestern University Medical School; Surgeon to St. Luke's Hospital and Chief Surgeon C., R. I. & P. Ry. Co.

DR. ARTHUR R. REYNOLDS,

Ex-Health Commissioner City of Chicago.

DR. LOUIS E. SCHMIDT,

Clinical Professor Genito-Urinary Surgery Northwestern University Medical School; Chief of Genito-Urinary and Skin Department Alexian Brothers' Hospital; Attending G-U Surgeon German, Michael Reese, Wesley and St. Mary's Hospitals; Professor G-U Chicago Polyclinic.

DR. OTTO L. SCHMIDT,

Physician Alexian Brothers' Hospital, Neurologist Michael Reese Hospital.

DR. D. A. K. STEELE,

Professor of Surgery College of Physicians and Surgeons of Chicago President West Side Hospital, Surgeon West Side and Chicago Hospitals.

DR. HOMER M. THOMAS,

Laryngologist to Cook County Hospital, Physician to Chicago Woman's and Children's Hospitals, Crippled Children's Home and Alma Sanitarium.

DR. THOMAS J. WATKINS,

Clinical Professor of Gynecology Northwestern University Medical School.

DR. RALPH W. WEBSTER,

Assistant Professor Pharmacological Therapeutics Rush Medical College, Director Chicago Laboratory.

*Medical
Library
6-3-42*

GRAND RAPIDS
PUBLIC LIBRARY
THE
CHICAGO MEDICAL
RECORDER

JANUARY, 1913.

Original Articles.

THE DEVELOPMENT OF CHILD STUDY.

By DR. D. P. MACMILLAN.

Director of Child Study, Chicago Public Schools.

In a previous article in this Journal,* I have sketched the value of child study to anyone particularly interested in children, and have indicated that this special field of research has contributed a definite body of information which ought to be put at the disposal of the parent, the teacher, the family physician and the social worker. This interest does not by any means confine itself to the abnormal child—the difficult child, the dull and defective child, the sick child—nor the aberrant from any point of view. To be sure these variants will always call forth special concern and will demand all the resources at the command of society, but in addition the phenomena of normal child growth, both mental and physical, must continue to receive all the care and study which they merit and must have, so that every power and capacity of childhood may be normally nourished and efficiently trained. Only by a careful study of childhood in and for itself can waste be eliminated and the glorious possibilities of humanity in its plastic period be discovered and cultivated. This represents the greatest of all conservation movements; for by it all others are measured. Scientific child study is the attempt to subject all the phenomena of child life to those rigorously exact methods of collecting, interpreting, explaining and presenting data that obtain in other fields of research, and so because the ideal aimed at, in the several fields of endeavor, is to know children and better their status and opportunities, it is well worth while to know what has already been done and to

27 *April, 1912.

sketch in broad outlines the growth of the movement in terms of some of the most prominent marks of its development and progress.

In proposing to review such a general subject as the scientific study of children, one must remember that children have always been more or less the object of study: there has never been a race, stock or grade of human beings, savage, barbarian or civilized in which the young members of the family have not been made the objects of earnest attention. It is the study itself that has developed, and indeed, like all observation, reflection and description, this particular form of study may be reviewed and analyzed from every human point of interest. To catalogue these interests in their exact chronological order of appearance is an undertaking as difficult as it might prove futile.

It would seem somewhat natural to review formal and exact studies of children under the captions of professional or personal investigations, and thus we find the studies of the physician, of the secular and religious teacher, of the parent, of the anthropologist, the sociologist, the philologist, the economist, and so on; or in brief, to range and rate them according to the passing or permanent proclivity of the student. To be sure these several groups of studies might be further subdivided, and the whole field analyzed and classified according to more specialized interests of the investigators, in the same way that studies in morphology, in embryology, in cytology and in physiology and such allied fields, form special research areas for the students of genetics in general biology. Again, one finds that serious studies of child life may with a good degree of fairness be grouped according as they are prosecuted for purely scientific purposes or for a practical concern. This is especially significant when one bears in mind the modern impetus given to the study of genetics or the beginnings, growth and functioning of the several human powers. Thus, for example, the philologist who becomes interested in speech betakes himself to a study of the beginnings, the elements, laws and development of speech in children, for the purpose of casting some light upon his special science, and what is true of the student of speech holds with equal force and aptness of the student of every human power and function. The practical studies of childhood, on the other hand, are pursued for an end that is immediately susceptible of application, or servicable in carrying out the art which engages the student, or for the skill which is thought desirable to develop in children; and if work of this character lacks system and thoroughness in its scope or detail, it compensates for these deficiencies to a certain degree by rea-

son of the interest and enthusiasm with which they are generally attended. At all events, this point of view is quite aptly illustrated by one enthusiastic reviewer of sporadic studies in one of the special fields, viz., the teacher's, when he says: "It is primarily for the teacher, secondarily for the children, and only incidentally for science."

Out of all these practical efforts arises a changed viewpoint, in that children are studied because the phenomena of child life are in and of themselves worthy of the most active and persistent interest, though indeed it may follow as a natural consequence that the art and skill of those who seek to effect desirable changes in these facts and processes of child life, are rendered more easy of application and more fruitful in results.

Further, the development of child study may be traced in terms of the several methods that have been employed in collecting data, showing how greater and greater care must be given to adequately control and properly interpret basic phenomena that come to hand. Almost anyone in immediate contact with children gets into a habit of making observations of one kind and another, and civilization does not advance very far until there is accumulated a folklore which relates to the health, religious and civic training of its young members. Furthermore, as general education advances there is soon evidenced an aggregate of observations with reference to the child in all his life activities. These observations of his sayings and doings may not be matters of record at the time of their appearance, or they may be put down with the greatest care and with the best of good intentions, but needless to say their general value depends upon the aptitude or training of the recorder, and even then the degree in which they represent all children is always difficult to calculate. We soon find ushered in the era of continued stories, of the journals and biographies of a few precious little ones, made by fond parents or guardians. Very often the child himself is persuaded to keep a written account of everyday events as they affect his life, and all sorts of observations and semi-reflections are indulged in as the habit of writing takes hold and the interest or fancy is caught in what is being told. All such may indeed afford some exercise in the training of verbal expression, although their importance may be limited only by the circle of original admirers.

Much more, however, can be learned from the products of the child's self-expression, of which happily there are not wanting excellent examples, in so far as these expressions may be gathered from

children's creative productions, drawings, collections, compositions, music, plays and games, and the like—provided only the interpreter of this material has sufficiently varied experience and insight to read these not only with reference to their sources—the surroundings, and medium of which they are a part—but also in the light of what they point to, and even then not as final facts in and of themselves.

Then again, the literature of all modern peoples furnishes excellent examples of the best kinds of reminiscent studies of the writer's own early childhood, as well as of what may be termed artistic interpretations of what is supposed to be taking place in the little minds and budding souls of those around him. Further, there are found, though not necessarily successive in time to these modes of procedure already indicated, serious studies by means of a set series of questions, which are to be answered either by the parents, teachers, guardians of children, and the like, or else they may be propounded to the children themselves.

Finally, one must note the altogether recent mode of attack, which is only beginning to be earnestly prosecuted and which is so auspicious in possibilities, viz., the direct application of measurements, tests, and experiments to the child as a whole. At some particular time and in the majority of countries, one aspect of the total life becomes the object of special solicitude and finally of serious study. For instance, at one time the body is studied either with reference to its pathological features or with regard to the natural phenomena of health and growth. At another time; or at least, by another group of the interested parties, the mind of the child in its order of development becomes the object of all-absorbing attention. However, it may fairly be said that for the last twenty years, and especially for the last ten years, the topic of the inter-relations of body and mind has engaged the greatest share of the investigator's attention, especially as these are related to the forms of training to which children are or are not subjected, and in relation to the medium, both induced and natural, in which the child's body must be cared for and his mind trained. This is well illustrated by the fact that at the present time all accredited studies center about the acts and performances of the child as an object of study, rather than about his bodily form, its structure, functions and changes, and the influences that act upon them, or about his mental power to receive experiences. It is well known that performance must unite both of these aspects, from which we get our best method of studying what is in their minds, as well as our surest way of knowing the character and constitution of the body

in all its parts. It is as true in testing children as in estimating moral character, "By their acts you may know them."

If further illustration of this general tendency were desired, one need only recall the difference in mode of attack represented by the Lombroso school of criminologists on the one hand and the present-day careful work of psychologists on the other. Defective ears, ill-shaped heads and all asymmetries of form may indeed furnish in some instances considerable information regarding hereditary traits and the past functioning of the body, but it will be readily admitted by all recent investigators that one is often led far afield by implicit reliance on these alone, and again, on the mental side, the sweat-box methods may produce results which are only products of the immediate moment and surroundings. Whenever this is all supplemented or completed by a thorough-going mental and physical examination, more particularly of the individual in controlled action, one gets a direct method of approach and a comparative estimate of a series of acts, which yield results altogether out of comparison with those depending entirely upon bumps and malformations. Then, again, one sees this advance in terms of a comparison of Dr. Warner's observational methods of examining children and the careful study of individuals by clinical methods. To be sure, the expert, in time, learns to trust his observations more and more in so far as these are checked and evaluated in terms of a vast range of experience, but observation alone can never disclose to one the signs and symptoms of imperfect bodily functioning, to say nothing of mental functioning. The one sure way of determining the bodily superiority or inferiority and the actual mental status, is by subjecting the individual as a whole to controlled tests and measurements which call into exercise the individual's optimum physical and mental efforts.

Perhaps the method of approach nearest the mark would be to point out how the natural, human, parental interest in children irradiates from the home and family life into the social and critically technical attitude toward them. At least one finds it the almost invariable course of events, that the scientific interest awakens contemporaneously with, as well as gives point and direction to the emotional awakening, that gave expression in former days to the earnest solicitations of the church on children's behalf, and in our own day in addition to all this, to mothers' meetings, club discussions, institutes and congresses, as well as to other more or less formal organizations of one kind or another. With this awakening one can see that there began to appear a few sporadic reports of studies on various aspects of child life, and

as fast as these appeared the inevitable theorist took up the work of grouping these data and making generalizations and applications that were sometimes very wide of the mark and nearly always premature. The interest and demand thus created elicited more careful and comprehensive researches, and there began the era of child study which has in our day its representatives in every progressive country.

Moreover, it is easy to see that every serious study begins with the larger social problems, such as the economic, the industrial, the geographic and climatic influences upon child welfare, and subsequently works over into a study of children themselves in all their ways. Again, in studying children the more easily accessible objective factors, such as growth in size, weight and strength, first claimed attention, and then only was interest deflected to the inner factors, the changes and conditions of growth in bodily parts that were not so "open to the eye"; and finally to the great features of mental development in all its phases.

For illustrative purposes in this connection, the development of scientific child study in America may be touched upon. The Health Department of the Social Science Association of Massachusetts had for a number of years after its organization made frequent reference to plans and projects for the study of the social condition of children, and in 1872 these public sentiments were crystallized by Dr. Henry P. Bowditch's report to the Boston Society of Medical Sciences on the growth in height of twenty-six persons, about equally divided as to sex, from birth to their twenty-fifth year. These measurements of individuals were compared with the earlier collective or group records of Quetelet on the growth of Belgian children, and with Cowell's statistics on the growth of the lower classes in the English towns of Manchester and Stockport. Because of the interesting problems which were called out in Bowditch's report, permission was asked in 1872 of the school board of the city of Boston to conduct an investigation of growth of school children, which indeed proved to be the *first formal investigation* of its kind in America and gave the necessary impetus to its successors in other cities. Indeed, it was hoped among other things to determine the general significance of the fact that American-born children of immigrants were found to be larger than those of the same family, race and stock in their original medium, and that the investigation might be greatly extended in scope and range of territory so that more might be known of the factors of transplantation, of seasonal changes, of city life, of comfort and mis-

ery in general, as determining factors influencing the growth of children.

The *second formal investigation* had the city of Milwaukee as its locus of activity. This was conducted by Dr. George W. Peckham along the same lines and with practically the same object in view as the Boston study. It was reported in 1881 and the comparisons instituted for the two sections of the country, particularly the striking comparison of German and Irish immigrants, were of considerable importance.

The next or *third formal study* was begun in 1892, just twenty years after the initial movement in Boston. Dr. W. T. Porter secured permission from the Board of Education of St. Louis to test and measure the children of school age. Here again the plan of study and the aims and mode of procedure were along the lines of the Bowditch investigation, although indeed many more aspects of physical growth were studied than by his predecessors. In addition, the attempt was first made to correlate physical growth and mental progress in terms of school advancement. The object of the study was succinctly stated by the author in the following words: "To determine the laws of growth of St. Louis school children, to establish a system of grading which shall take into account the physical capacity of pupils in giving school tests."

Due to the fact that certain far-reaching conclusions were drawn from this attempt to correlate physical growth as measured by the anthropologist on the one hand, with mental development as gauged by teachers in terms of progress on school studies on the other, the subject was made the basis of the *fourth formal investigation* in 1895, conducted contemporaneously by Dr. Franz Boas in the schools of Worcester, Mass., and by Dr. G. M. West in the schools of Toronto. Here, in addition to a more careful analysis of their own statistics and the findings of their predecessors, they varied the tests or indices of mental development from class standing of school pupils, into which it is admitted many disturbing factors enter, to a written estimate made by the teachers which placed children into three groups—good, fair, poor—basing their judgment upon "the observed natural intellectual quickness, general aptitude for assimilation of ideas, and initiative." Porter's studies in the third formal investigation mentioned seemed to warrant the conclusion that physical superiority was on the whole found accompanied with advanced class or school standing, and conversely, and by some writers and educators this correlation of physical and mental was spoken of in terms of a causal rela-

tion. The fourth investigation, conducted by Boaz, showed that children who are retarded in school grade are retarded in all their physical measurements; they are simply short or light-weight or weak children of their particular age, but all their measurements correspond to those of younger children, while measurements of children who are ahead of their age correspond to measurements of older children.

The *fifth formal commission* for the study of children is represented by the organization and establishment in 1898 in Chicago of a special Bureau of Research, attached to the office of the Superintendent of Schools, which owes its inception, early direction and scope of work to the genius and farsightedness of Dr. Walter Scott Christopher, and which became in September, 1899, the Department of Child Study and Educational Research. This was, as far as is known, the first department of its kind organized and maintained by a board of education of a public school system. The office, upon becoming an integral part of the Chicago school system, has grown and expanded until it has become literally a local clearing house of special problems which school children present, and an assistant to all the instrumentalities of the school system which make contact with other agencies of the city dealing with the educational welfare of children. To be sure, the work in Chicago was at first more largely investigatory than practical, and while this feature is never lost to view, nevertheless it has seemed wise—at least for a time—in expending public funds to take care first of the immediately practical problems, and to make the research features grow out of the daily clinical studies, rather than in going afield to study problems of purely scientific interest.

As time has passed, certain other types of formal commissions have been organized in different parts of the country under private beneficence, for the investigation of certain features of child life, such as, for instance, the Russell Sage Foundation's support of the "Backward Children Investigation" inaugurated in November, 1907, whose practical work was devoted directly to an analysis of school board statistics collected by the larger municipalities. Then again one must bear in mind the investigation of young working children at Cincinnati, supported by the Schmidlapp Bureau; the privately supported institute in connection with the Juvenile Court in Chicago for the study of delinquents; the Gatzert Foundation at Seattle under direction of special departments of the State University of Washington; the privately maintained Research Bureau, since 1906, in connection with the Vineland, New Jersey, Training School for Feeble Minded

Children; the Research and Training Bureau attached to the Department of Psychology of the University of Pennsylvania; and the work now conducted in several of the larger normal schools and departments of education of universities for the purpose of giving some special training to teachers.

In this connection, again, further mention must be made of the large amount of valuable work which emanated from Clark University under the inspiration of President G. Stanley Hall. To be sure, this has always been conducted by means of the questionnaire to parents, teachers and others, a mode of procedure which rather locates than solves educational problems, even with the exercise of the greatest skill and care. For a number of years until research centers were established like the Chicago Department of Child Study, this method of collecting data represented the only work done on the mental features of child life, and whatever else may be said of the method it at least provided a valuable supplement in America to the work done almost exclusively on the physical aspects of child nature. The first of these Clark University studies, which was reported in 1880, on the contents of children's minds on entering school for the first time, was to all intents and purposes the presentation of a series of questions which had been given to German children some two or three years previous. Since this time the questionnaire method has been employed with altogether good results upon a vast variety of topics, the full list of which may be learned from the pages of the *American Journal of Psychology* for 1893, and the *Pedagogical Seminary* for the years 1905 and 1907, both of which journals are published under the directing hand of President Hall.

To all this well directed activity in America must be added the never-to-be-disparaged investigations conducted by psychologists, physicians, educators, and other specialists on one aspect or another of the young lives with which they have been intimately thrown in contact. Moreover, all the really valuable results of such information as have been collected were dispensed among practical workers through the influence of local city and state organizations for child study, more prevalent ten or fifteen years ago than at the present date, and through the influence of the Child Study Section of the National Education Association (established in 1893), which always succeeded in keeping the teaching profession actively interested in the subject. Nor should we fail to remember the always valuable contributions of pediatricians and general practitioners of medicine regarding the health and hygiene of the child, and the influence thus exerted on physicians and the

reading public. Finally it suffices to only mention in order to appreciate the great influence as public educators of such foundations as the Child Welfare Exhibit of New York, January, 1911, the Chicago Child Welfare Exhibit in the following month of May, and the organization of numerous institutes and congresses throughout the country, the most important of which, in all probability, was that inaugurated at Clark University in September, 1909, all of which activity has culminated in the organization of the Federal Bureau of Child Welfare, whose work of collecting statistics at large concerning children, and of giving due publicity to the data, has begun so auspiciously.

Much remains to be done in the whole field, but the program of future work is well set, and if the past achievements and present interests are safe indicators, we may look with hopeful eyes for the accomplishment of really great things in the study of children.

THE SUPPRESSION OF VICE DISEASES THROUGH PERSONAL PROPHYLAXIS AND MUNICIPAL CONTROL OF THE SALOON AND COURTESAN.*

By COLONEL L. MERVIN MAUS, MEDICAL CORPS, U. S. ARMY.

I am glad to be with you this evening and have this opportunity of discussing with your society the two great social evils of the day, prostitution and the alcoholic habit, which in my opinion are the predominating causes of venereal diseases and degeneracy in the human race.

Alcoholic addiction, prostitution and venereal diseases have gone hand in hand for untold ages; even back to the days when Tamar sat among the harlots on the way to Timmath and enticed Judah. Moses issued sanitary laws and edicts against this unholy trinity, and in the ancient literature of Mexico, China, Egypt, Greece and Rome, we find them of record.

The time has now arrived to meet these vital problems fairly, squarely and without evasion. They must be recognized as a part of the great social fabric, which cannot be combatted successfully through moral suasion and the instillation of lofty ideals alone, but through rational and scientific measures. Why attempt longer to bury in the social closets of the world these ghastly skeletons, which for centuries have been gradually but surely gnawing their way to the very heart of human existence?

The role that alcohol plays in the contraction of venereal diseases and its association with prostitution, makes its control or prohibition necessary for the successful municipal treatment of the three well known social evils. Alcohol plays such an important part in the contraction of venereal diseases that it is questionable whether more than 5% of this morbidity occurs among the abstaining class.

Major Page, Medical Corps, states from personal observation at a clinic at Baltimore, he had not found one case of gonorrhea in five hundred, that claimed to be sober during contraction of the disease, and explains "by sober" free from the injurious effects of alcohol.

Investigators, who have studied the psychological effects of alcohol on man, state that even in moderate quantities it lowers the moral standard, lessens self respect and makes men less cautious. Besides, even in moderate quantities, alcoholic beverages arouse the desire for sexual indulgence and association with the demi-monde. A

*An address delivered by Colonel L. Mervin Maus, Medical Corps, U. S. Army, before the Providence Medical Society, Providence, Rhode Island, December 2, 1912.

cocktail before dinner, followed by a few high balls later on becomes the vis-a-tergo, that sends young men to the red light district and possible infection. It can be safely said that every prostitute, professional or otherwise, contracts syphilis or gonorrhea in some period of her career, and hence becomes a menace to her clientele.

While no one questions the harmful effects of alcohol on the health and well-being of the hard drinker, the scientific propaganda against intemperance has proven that even in moderate quantities it interferes with mental activity, affects the general health, diminishes longevity and promotes degeneracy in the offspring of its addicts.

Saloon keepers denounce prohibitionists and opponents to the whisky traffic as unfair in not treating their business with the same respect shown others. The liquor business does not stand well in any community, is always apologetic in its attitude, and does not merit the respect and consideration, shown honest commerce and legitimate trade.

Besides the saloon has ever been the focal center of crime, graft, fraud and low motives. It is the home of the ward heeler, grafter, crook, undesirable citizen and degenerate, and its habitués are rarely represented among the leaders of the higher standards of life and good citizenship.

In order to counteract the influence of the saloon element in politics, I would recommend that total abstinence become a requirement in the candidacy of mayors, aldermen, city judges and attorneys, members of the police and fire departments, and all other employes and officials of the city government.

In cities and towns where local prohibition does not exist, the number of bar rooms should be restricted in accordance with the population, not over one to every two thousand, and kept out of residential districts. Besides, bar rooms and beer halls should be deprived of the social features which make drinking attractive and dangerous. Music, chairs, tables and private stalls should be removed and the accommodations limited to the bar and standing room alone. The treating habit should likewise be prohibited, and saloons kept closed before 9 a. m. and after 11 p. m. daily, except on Sunday, election days, state and national holidays, during which they should be kept closed all day.

In order to accomplish these reforms, no candidate for state or municipal office should be indorsed by the medical profession and the educated public, who had not stated satisfactorily his platform on the control of the three great social evils. A clean and healthy nation

should become the war cry of the progressive element in every community.

An active propaganda against the alcoholic habit should be started in every community, and the struggling temperance organizations given a helping hand. Every intelligent and patriotic citizen should awaken to a sense of his real duty toward mankind and the coming generation.

It is high time for the medical profession as a body to assert itself on this paramount question of national health. The members of our fraternity, which represents the greatest altruistic society in the world, occupy a stronger position for the denouncement of alcohol, from a mental, moral and physical standpoint, than any other profession or school in the universe. Besides by virtue of the oath of Hippocrates, and as sons of Aesculapius, it becomes our bounden duty to fight alcohol, the most baffling obstacle to man's progress and higher evolution, and the arch enemy to mankind.

In combatting venereal diseases prostitution should be recognized and subjected to state and municipal laws. The widespread condition of vice diseases in civil life and their degenerating effects on the nation demand not only the most drastic measures for their control but for that of alcohol and prostitution, which are their acknowledged allies and confederates.

It is generally understood that the prostitute is the purveyor of venereal diseases and the initial step in the great crusade against these loathsome maladies should be the control of this unfortunate sisterhood.

Laws should be enacted in every state, city, town, village and district throughout the land for the segregation of the demi-monde. There should be a Yoshiwara in every city, as well as a lock hospital for its diseased inmates. Such regulations if properly enforced would in a large measure solve the venereal problem.

Experience gained in Jolo during the early days of the Philippine Insurrection demonstrated the wisdom of this procedure. The public women of the town were segregated and subjected to weekly inspections. Those found diseased were transferred to a lock hospital and retained there until cured or past the infectious stage. The city of Jolo was under military control at the time and the experiment worked admirably.

A very satisfactory system was also inaugurated in Manila during early American occupancy and with slight modification is still in force. The public women were required to keep a small examina-

tion book with photograph, and to submit to a weekly examination. Those found diseased were sent to San Lazaro Hospital, which had been especially organized for the courtesan class. The hospital had a capacity of 300 beds and was practically kept filled. There were fifteen hundred public women in Manila at the time, 25 per cent of whom were usually affected with venereal diseases.

In order to control prostitution and prevent the spread of venereal diseases every city government should recognize its existence and provide laws for its government. To this end I would recommend the following regulations:

I. That permission to conduct a house of ill-fame be given by the Chief of Police with the consent of the municipal authorities.

II. That no person under the age of 21 be permitted to enter a house of ill-fame as an inmate.

III. That no person under the age of 21 be allowed to enter or loiter around a house of ill-fame unless such person can show that he or she was in that locality on business of a reputable character.

IV. That any woman engaged in the traffic or trade of prostitution be registered and required to possess an examination book in which her name, age and birthplace is recorded and photograph kept.

V. That any woman engaged in the trade or traffic of prostitution be subjected to a weekly examination and required under penalty of a fine or confinement to present herself at the regular weekly date fixed for examination.

VI. That any woman engaged in the trade or traffic of prostitution found suffering from an infectious venereal disease be confined in a lock hospital until cured or past the infectious stage of the disease.

VII. That no males be allowed any financial interest in any house of ill-fame nor permitted to live in such house.

VIII. That soliciting on the streets or from the doors, windows, or any part of a house of ill-fame be prohibited.

IX. That inmates be not permitted to dress in short skirts, transparent material, nor indulge in indecent or unusual practices.

X. That no signs, colors, or devices that are significant or conspicuous be permitted on houses of ill-fame.

XI. That windows and doors of such houses be secured from the public gaze and that no obscene pictures be allowed.

XII. That pianos, bands of music and dances be prohibited in houses of ill-fame.

XIII. That the sale or use of intoxicating drinks be prohibited in houses of ill-fame.

XIV. That the proprietress of houses of ill-fame be required to keep in each room for the free use of their patronage an effective venereal prophylactic with a wall card in large letters explaining its use and mode of application.

XV. That any person, who contracts venereal disease in a house of ill-fame, where such prophylactic and wall card are not kept, will have a just

cause for legal action against the proprietress for the contraction of such disease.

XVI. That no house of ill-fame be kept open to guests after 2 a. m. and that the landlady be held responsible for compliance with the regulations and orderly conduct of the house.

Health boards and public educators should not only educate the masses on the injurious effects of alcoholic addiction and diseases of vice, but carry this valuable instruction into every public and private school in the land for the benefit of both sexes. The traditional prejudice against the public discussion of sex hygiene and venereal diseases is dying out among educated and liberal minded people, and it is hoped that the misleading fairy tales heretofore taught children in regard to the unnatural manner of birth, like the ghost and witch stories of southern negroes, may soon become a legend of the past.

I know of no period in the history of our country when a general moral reform was more greatly needed. The purity of our young men and women is menaced by the vicious tendencies of the age, which are destroying public health and morals.

The increase of tippling and cigarette smoking is marked among the women of the wealthy classes while their less favored sisters haunt with pernicious frequency places of amusement, which pander to the basest human passions, and chase with utter abandon the voluptuous step of the grizzly bear, bunny hug and turkey trot.

In the interest of health and morality, dance halls with liquor attachments, restaurants where women resort to drink with men, hotels where young girls are lured to their destruction, music halls that are the purveyors of lewdness, and assignation houses should be obliterated from every community.

Linked with the general campaign against moral degeneracy and venereal diseases should be laws regulating marriages. No one should be permitted to marry unless authorized by a state board of medical examiners. Applicants for marriage should be pronounced free from all morbid and mental conditions which affect heredity. Tuberculosis and constitutional dyscrasias, uncured syphilitics, alcoholic and other narcotic addicts, paranoia and allied mental affections and degeneracy should be disqualifying causes. Sterilization should be performed on male criminals convicted of rape, arson, robbery and other crimes of degeneracy.

The great venereal crime has been the subject of many national and international congresses and conventions during the past generation, and its effects on state and community is too well known to require further comment. The history of syphilis begins with the

dawn of man and it has been asserted by qualified writers to have been the cause of more degeneracy and death than any other disease known to the world. Through its hereditary influences races and tribes have been swept from the face of the earth.

The prevalence of venereal diseases and their significance to public health has recently attracted the attention of civil as well as military authorities. It is generally known that they vastly overshadow all other diseases of an infectious nature, and are believed to involve one-eighth of the human race. Besides this class of diseases falls most heavily on youth, the most productive period of life, and is due to gonorrheal infection that hundreds of thousands of our women have been rendered sterile through inflammatory conditions of the uterus and adnexa.

Many plans for the suppression of venereal diseases have been proposed by various committees organized for the purpose.

Rigid laws for their control have been suggested for municipal and state enactment. Cities and town authorities have taken up the matter spasmodically over the country and in some instances have passed ordinances, which were rarely or never enforced. Owing to public sentiment, politicians and law makers have generally failed to take up for consideration legislation which would entail the recognition of prostitution.

The majority of educated people are aware that gross ignorance concerning venereal diseases is largely responsible for their prevalency, and that a knowledge of the subject does not necessarily impair purity and innocence among the young as suggested by the opponents of a campaign of venereal prophylaxis for their suppression.

Since the Spanish War in 1898, the attention of the military authorities has been called to the prevalency of venereal diseases in the army, which for a number of years have stood at the head of preventable camp diseases. Considerable acrimony has been exhibited by certain writers on the subject who ascribe the increased incidence to the abolition of the beer feature of the post exchange in 1901.

There seems to be little doubt but that diseases of vice were quite as common in the army before the Spanish War as since that period, although not altogether susceptible to statistical proof. Medical officers who were in the service before 1898 are aware that not more than 33 per cent of the venereal incidence was made of record during that period. Venereal inspections were not made at that time and besides little official attention was paid this class of diseases.

While venereal inspections have been carried out quite faithfully

among the troops in the Philippines since 1901, little or nothing was done in the way of prophylaxis until 1906. At that time Major H. I. Raymond of the Medical Corps succeeded in introducing the German method of prophylaxis at Columbus Barracks, Ohio. The system consisted of a package containing a small box of blue ointment, a dram vial of 20 per cent argyrol solution and an ordinary eye dropper, in lieu of a syringe.

This method became known to the army as the K packet and was voluntary in use. In a report to the chief surgeon of the department six months later Major Raymond was forced to admit its failure. He attributed this in part to the fact that the system was new, its use voluntary, and too bulky for convenient carriage in the pocket. In the meantime naval surgeons introduced aboard ship a dispensary system, which has practically become the basis of the system recently established for the United States Army. The routine practice of the Navy with slight modification consists of:

1. A wash of 1-5000 HgCl₂ for penis.
2. 20% argyrol or 2% protargol for the urethra.
3. 30—35% HgCl₂ ointment for the penis.

Orders were issued that sailors in returning aboard ship from pass should report to the dispensary for disinfection if they acknowledged sexual contact while ashore. Those who did not report for disinfection and showed infection later were court-martialed or otherwise punished.

Numerous reports have been published in the service journals by army and navy medical officers regarding the results of venereal prophylaxis, both aboard ship and at army posts, with flattering results. It has been ascertained, however, that the dispensary system of prophylaxis has not proven effective unless administered within six to eight hours after contact.

Early in the spring of 1910 the speaker began a series of experiments with the view of improvising an effective packet system in place of the bulky K packet, which was too complicated for the ordinary soldier and too bulky for pocket carriage.

In conducting these experiments ordinary cc. collapsible nasal tubes were used as containers. Metchnikoff had proven that 33% HgCl₂ ointment would protect against syphilitic infection and it was therefore decided to use this ointment as a base for the proposed single method protection.

Sixteen men, who were secured as volunteers, were utilized in the experiment and divided into groups of two. Before inoculation

scrapings from their urethras were examined microscopically to guard against existent infection, as well as the pus used in the experiments to determine the presence of gonococci.

The experiments which follow were made in the course of two months and the results authenticated by the medical officers who conducted them.

The following table gives the formula of prophylaxis used in each experiment, time after inoculation before prophylaxis was introduced into the urethra and results:

Group.	Formula.	Time after Inoculation.	Results.
1.	Argyrol, 20%; calomel, 33%; fatty base of ointment, 47%	10 minutes	Successful
2.	Protargol, 2%; calomel, 33%; fatty base of ointment, 65%	15 minutes	Successful
3.	Thymol, 5%; calomel, 33%; fatty base of ointment, 62%	20 minutes	Successful
4.	Phenol, 3%; calomel, 33%; fatty base of ointment 64%	20 minutes	Successful
5.	Hyc0, 2%; calomel, 33%; fatty base of ointment, 65%	25 minutes	Successful
6.	Calomel, 33%; fatty base of ointment, 67%	25 minutes	Successful
7.	Calomel, 25%; fatty base of ointment, 75%	30 minutes	Successful
8.	Calomel, 20%; fatty base of ointment, 80%	30 minutes	Successful

Dr. Gustave M. Blech, of Chicago, confirmed my experiments on sixteen volunteer Greeks and Italians at the time patients at Lincoln Hospital in that city. He employed the same technique in regard to the examinations of urethral scrapings and gonorrheal pus in order to satisfy himself that the men were free from infection at date of experiment and that the pus used in the inoculations was gonorrheal.

Several months after the conclusions of my experiments with calomel as a gonococcocide, a military tournament was held in Chicago, at which 1,200 regular troops were present. With the authority of the department commander I was enabled to introduce my system in the camp.

The troops were examined physically on arrival and record made of those diseases. They were then furnished with the A. & N. Protection, the name given the calomel tube for convenience and distinction from other methods, and the men instructed in its use. At the conclusion of the tournament, two weeks later, another examination was made of the command at which no additional cases of venereal diseases were discovered.

A similar experiment was conducted during the maneuvers at Fort Benjamin Harrison, September, 1910. Physical inspections were made of the command on arrival and record made of the infected cases. The A. & N. Protection was furnished the men with instructions as to its proper use.

An examination followed the maneuver and it was found that 594 men with 1,301 exposures, who had used the protection, suffered no additional infection, while 302 men with 763 exposures, who had not employed the protection, contracted 26 cases of gonorrhea, 12 cases of chancroids, and 1 case of syphilis. These practical demonstrations together with my previous experiments have proven conclusively, in my opinion, that calomel is a prophylactic against gonorrhea and chancroids as well as syphilis.

In the August number of the *Military Surgeon*, under the title of Experiments with the A. & N. Protection to determine its Efficiency as a Gonococcocide, Major F. F. Russell and Captain Henry J. Nichols, Medical Corps, Army Medical Museum, Washington City, have described a series of experiments on soldiers to determine the value of calomel, argyrol and protargol as prophylactics against gonorrhea. In making these experiments they employed 34 soldiers who were suffering from fresh attacks of the disease.

Their technique was as follows: "Smears were made from the urethral discharge to establish the diagnosis; if the case was suitable the cultures were made on 2 to 4 tubes of ascitic fluid agar. The disinfectant was then applied to the urethra, where it was retained one or two minutes, when the excess was allowed to escape; the patient waited 10 to 15 minutes, then urinated, when fresh smears and cultures were made from the fluid expressed into the meatus. The cultures were incubated 24 hours and suspicious colonies examined by a Gram stain."

While the test to which the A. & N. Protection was subjected was exceedingly severe, it proved successful in 7 out of 8 cases, as much so as argyrol and protargol which were tried out in the same manner. I do not regard these experiments as entirely fair for the reason that gonococci imbedded in the sub-mucous tissue of the urethra are constantly welling up from below, and could not be reached by any germicide as applied in these tests.

The 36 experiments under the supervision of Dr. Blech and myself, where calomel was applied after urethral inoculation, were entirely successful.

Surgeons Reginald B. Henry and Robert A. Bachmann, have

also employed my method of venereal prophylaxis in the United States Navy with marked success. Surgeon Henry calls attention to a record of 567 exposures among the crew of the *Rainbow*, without a single case of infection, following the use of a 25 per cent calomel, petrolatum, lanoline solution. (Military Surgeon, May, 1912.)

Surgeon Bachmann speaks very highly of the calomel method of prophylaxis, and cites an instance where 9 men had intercourse with a public woman infected with gonorrhea, and escaped infection through this method of prophylaxis, while the tenth man who had contact with her avoided prophylaxis, contracted the disease. (Military Surgeon, August, 1912.)

Surgeon Bachmann has been so favorably impressed with the calomel method of prophylaxis, that he has devised an imitation of the A. & N. Protection, which is exploited and sold by the Sanitube Company, of Newport, Rhode Island. He has modified my old formula by adding 1% trickresol in place of the phenol, and added an inch and a quarter rubber tube to the nozzle of the container. The trickresol has no material advantage over the phenol, and I believe the long rubber tube will prove a source of irritation to sensitive urethras and be ultimately discarded. Besides the lumen of the tube is too small to admit of free passage of the ointment in cold weather.

Until recently, June, 1912, the control of venereal inspections and prophylaxis in the army were left to the discretion of the different department and division commanders, whose activity along these lines, depended upon the interest chief surgeons displayed in the matter.

Before made compulsory by general orders number 17, War Department, issued in May of the present year, three methods of venereal prophylaxis were employed in the army. These three systems were known, 1, as the K packet; 2, dispensary system and 3, toilet method, and their use left almost entirely to the discretion of the men. Three systems of prophylactic tubes were issued to the troops, namely, 1, the A. & N. Protection; 2, the Andron packet and 3, the Slee tube.

The container employed in the A. & N. Protection consists of a one dram pure tin collapsible tube, with a short anatomical nozzle, while the contents is composed of camphor 3%, phenol 3%, calomel 30% with equal parts of benzoated lard and lanoline to make up the 100 parts. A number of formulas were tried out in the original experimentation before the above one was accepted, which has been reported as effective by the Army Medical Laboratory.

The Andron packet originally consisted of the double method and contained five small tubes and one large one. The small tubes contained a 20% argyrol solution, while the large one a 33% calomel paste. Dr. Price, the originator and owner of the Andron tube informed me lately that he had abandoned the use of the silver salts and adopted my formula.

The container of the Slee tube was divided by a partition one-half of which contained the calomel paste and the other half a 20% argyrol solution. The mechanical construction of the Slee tube did not prove entirely satisfactory and I believe has been abandoned by Dr. Richard Slee, the originator.

The dispensary system was employed in the dispensary or hospital after the return of the soldier from pass, and was administered to those who confessed sexual contact. With slight moderation it consisted of:

1. A wash of 1-500 HgCl_2 for the penis.
2. 20% argyrol or 2% protargol solution for the urethra.
3. 25% to 35% HgCl ointment for glans and prepuce.

A member of the hospital corps was assigned to this duty and directed to administer the prophylaxis to any soldier who had been exposed and reported for disinfection. The toilet system was installed in the closets of each barrack, was practically the same as the dispensary method, and was intended for personal administration by the soldier after his return from pass.

While all of these systems possess merit and no doubt have had their influence in the suppression of venereal diseases in the army, they have not proven entirely satisfactory. This was in part due to the fact that many of the men used the tubes improperly or neglected to report for dispensary disinfection in time to prevent infection.

In order to make the prophylaxis of venereal diseases in the army compulsory and uniform the War Department issued an order on the subject, May 29, 1912, which has been in force since about July of the present year. The Surgeon General of the Army submitted a working scheme which has been authorized and made compulsory throughout the army. Besides an order has been issued depriving officers and enlisted men of pay while on sick report or unable to perform duty as a result of diseases and conditions contracted through drinking or other vicious practices. The following details of the present system of venereal prophylaxis for the army has been furnished from the Surgeon General's office, requiring a card to be kept of each soldier:

1, name, rank and organization or soldier with day and hour of contact and day and hour of disinfection; 2, wash genital organs with soap and warm water; 3, inject into urethra 4 cc. solution composed of protargol 2%, glycerine 15 parts, and water 85 parts, retain three minutes; 4, rub penis in calomel ointment, 30% and wrap in soft paper napkin.

The Surgeon General authorized the use of a 20% argyrol solution in case the protargol produces an irritating effect on urethra, and has recommended the sale of protective tubes in post exchanges containing the formula of the A. & N. Protection as given above in Russell and Nicholl's experiments.

Since the installation of the present method venereal diseases have been reduced, but not altogether suppressed. The failure in part results from the length of time which elapses after contact before disinfection is given. Besides a large number of men are enlisted who are suffering from an unrecognized chronic gonorrhea, which reappears from time to time.

The dispensary system of venereal prophylaxis as used in our military services could be applied to the police and fire departments of a city, the national guard during mobilization, street car systems, factories, mines and other large corporations, where men are employed, and to erring youth of our high schools, colleges and universities, but not to men in the ordinary walks of life.

For this class I would strongly recommend the use of a reliable prophylactic tube after illicit sexual contact, and that they be kept in every drug store for sale. Every physician who had the interests of humanity at heart, should inform young men that sexual indulgence was not essential to health, but that venereal prophylaxis was always necessary in order to escape the great venereal peril, which threatens everyone who indulges in illicit sexual intercourse.

THE MEDICAL RESERVE CORPS—ITS DUTIES AND RELATIONS TO THE ARMY IN PEACE AND WAR.*

LECTURE NO. 2.

By W. B. BANNISTER.

Lieutenant-Colonel Medical Corps, U. S. Army, Sanitary Inspector, Central Division.

In the last lecture you had joined your regiments and we will assume that your orders directed you to report to the Commanding Officer of the regiment in person and by letter to the Commanding General of the Division. The question will at once arise as to what form this letter should take in order to comply with existing orders governing the forms of official correspondence. It should be as follows:

Camp ———, U. S. Infantry,
Chicago, Ill.,
Dec. 19, 1912.

From: First Lieut. A. B. Smith, Medical Reserve Corps.

To: Commanding General, First Division, First Field Army.

Subject: Reporting for duty.

I reported for duty with ——— U. S. Infantry this date, per Par. 3, S. O. No. 15, W. D., dated Dec. 12, 1912.

A. B. SMITH.

All ceremonial forms at the beginning and end of letters, such as, "Sir," "I have the honor," "I would respectfully," "Very respectfully," etc., are obsolete and no longer employed in official correspondence.

It will also be necessary to report your arrival to the Chief Surgeon of the Division on an information slip. A book of information slips, which resembles a long check book is contained in the field desk of the regimental infirmary. Under the heading of "Subject" the entry should be: Report of arrival, and beneath—

Reported for duty with ——— U. S. Infantry this date per Par. 3, S. O. No. 15, W. D., dated Dec. 12, 1912.

A. B. SMITH,

First Lieut. Medical Reserve Corps.

If you should be ordered, after joining one command, for duty with another you should report your departure and your arrival on a separate information slip, directed to the Chief Surgeon of the Division to whom the report pertains. At the end of each month every medical officer in the army forwards to the Surgeon General, through the Chief Surgeon of his division a personal report on an information slip defining the duties performed by him during the month. You should now, while not in active service, report your address at the end of each calendar year to the Surgeon General, U. S. A., and

*Presented at a meeting of the Association of the Medical Reserve Corps, U. S. A., Illinois Division, December 19, 1912.

any change of address should you reside elsewhere. This is to enable the War Department to quickly communicate with you in case your services were needed in an emergency. It is considered important, that on the eve of your military career, you should be given the information necessary to obtain a clear idea of army organization in order that you may work in harmony with the general scheme.

An army is composed of two or more field armies. A field army is composed of two or more divisions and the necessary auxiliary troops. A division is composed of—

- Division Headquarters, Commanding General and Staff.
- Infantry, nine regiments, in three brigades of three regiments each.
- Cavalry, one regiment.
- Artillery, one brigade of two regiments.
- Engineers, one battalion.
- Signal troops, one battalion.
- Ammunition train.
- Supply train.
- Ambulance companies, four.
- Field hospitals, four.
- Pack train, one.

And the strength of the division including every one for whom the medical department has to provide, is 19,850, or in round numbers, 20,000. The division is the great administrative and tactical unit, and the basis of army organization. It contains all branches of the service; has its complete line of medical assistance from front to base, and its line of communication. Therefore your military career is regarded in this lecture as limited to the division in which you serve, but you may serve as a factor in any of the medical organizations of the division and consequently you should be informed in a general way of the duties of each. After joining the division you will not necessarily remain with a regiment, but are subject to detail with any medical unit of the division.

Before beginning your first march you should know something about orders, and casualties in war, as both subjects will have an important bearing on the proper discharge of the duties in action, and an intelligent understanding of the principles of the game of war, as regards the medical part of that game.

ORDERS.

A military order is the expression of the will of a chief conveyed to subordinates. However informally expressed, military orders must be loyally and promptly obeyed. For the purposes of this paper orders may be classed as: General Orders, Special Orders, Orders and Field Orders. General orders publish matters of importance to the whole command, such as roll calls, police regulations for the army, or

results of trial by general court martial. Special orders are such as concern individuals or relate to matters that need not be made known to the whole command, orders of commanders of small units, such as a field hospital are simply designated as "Orders." Field orders as far as our purpose is concerned, deals with the tactical and strategical details incident to contact with the enemy. Field orders are numbered serially, beginning with the establishment of the organization or with the year, and usually define the line held by one's own division, what is known of the line held by the enemy, and the plan of attack. For instance, one paragraph might provide that "This division will attack and envelop the enemies right flank tomorrow." It might define where and at what hour the sick would be assembled, where a dressing station would be located, or a field hospital, and whether the other field hospitals would be held in reserve or otherwise. The last paragraph would indicate where reports would reach the Division Commander, and this is of interest to us, because it would inform us also where the Chief Surgeon of the division could be communicated with. The Chief Surgeon, based on the field order, would issue a special order designating the Ambulance Company that was to establish the dressing station above mentioned and also the number of the field hospital (each field hospital has a special number) that was to be established in a designated place. So you see the field order would indicate the scheme of the day's work. I should warn you that if an order or important message is sent by an enlisted man, be sure and have him repeat the order or message before he leaves you and make him continue to repeat it until he gets it just the way you wish it delivered. This precaution is especially necessary in the excitement of action. You should bear in mind that the fact that you hold a commission in the Medical Reserve Corps, would not debar you from accepting a commission with higher rank either in the organized militia or the volunteers, in which case you might have both orders and messages to send.

CASUALTIES IN WAR.

It must be apparent to you that there must be some basis on which to formulate estimates as to the number of the sanitary personnel, the amount of transportation and medical supplies that will be needed in a campaign to properly take care of the wounded. This basis is obtained principally from a study of the casualty statistics of the Civil War and Franco-Prussian War of 1870-71, and of such data as is available from the Russo-Japanese War. It would not be practicable to base our estimates on a possible "high maximum of cas-

ualty," because that would require such increase in army trains as to seriously impair the mobility of an army, so we base them on the "ordinary maximum casualty." And this experience indicates is approximately 10% of an army. A higher percentage than this for the army would probably result in a local or general disaster, though units such as a regiment or brigade, etc., might, and have sustained a much higher percentage of loss with firmness.

In such an instance, while the sanitary personnel, transportation, etc., for that unit might not be sufficient, yet as the loss was not evenly distributed, we could supplement any deficiencies, by using resources from other units that suffered but slight casualties or none at all, as all the army is not likely to be engaged at the same time or on the same day even. During the Franco-Prussian War the average loss in individual battles was 7%, whereas during the Russo-Japanese War it was 16.7% for the Russians and 20.4% for the Japanese. In the Civil War and in the campaign of 1870-71 most of the battles were fought on one day, while in the Manchurian campaign they lasted from a week to nearly two weeks, as in the operations about Mukden, so when we come to compare the average loss per battle day, and this is of the most practical importance as it indicates the amount of each day's work, the figures change materially.

The loss per battle day for the Germans was 4%, while for the Russians it was 1.7% and for the Japanese 2%. So it appears that our estimate would permit us to at least take care of the casualties of each battle day. Battles are not fought every day in a campaign; far from it. The Russo-Japanese War lasted for two years, but there were only forty-two battle days. Now let us apply our 10% casualty list to our division of 20,000 men and see how it works out practically. It would give us 2,000 casualties, and we could not handle that number of wounded with our divisional resources in a day, at least it would appear so at first glance, but let us consider what experience teaches, viz.:

20% of those hit are killed.....	400
8% will be so badly wounded they cannot be moved.....	160
32% will require transportation	640
28% will be able to walk to dressing station and field hospital.....	560
12% will be able to walk to advance base.....	240
Total	2,000

In reality we will have to furnish transportation from the battle field for only 640, and 20% of these can be transported sitting up, which enables us to transport eight men in an ambulance instead of

four, and the problem is well within the limits of our resources, especially since the Manchurian campaigns show the heaviest loss was only 2% per battle day. The small calibre steel jacketed bullet is much more humane in its effects than the old large calibre soft lead bullet, which mushroomed and lacerated the tissues so extensively. Flesh wounds from the small calibre bullets heal in a few days, and thus conserve our hospital accommodations. During our Civil War, 13% of the Union wounded died; in the Franco-Prussian War, 11% of the German wounded died, while in the Russo-Japanese campaign only 3.2% of the Russian wounded died and 6.8% of the Japanese wounded.

One of the junior medical officers holds "sick call" and this is one of the most important duties they have to perform, and its object is to determine for the information of the regimental commander what men are fit for duty, so it is to be conducted as expeditiously as possible so that the surgeons' morning report of sick and wounded can reach the Adjutant's office at an early hour. Sick call is sounded by the trumpeter on duty at the hour fixed by the regimental commander in orders, and then one non-commissioned officer in each company takes the company sick report book, in which the names of those reporting sick have been entered, collects his squad of sick and marches them up to the regimental infirmary. The surgeon officiating takes the company sick book and calls out the first name in the list and this man steps to the tent door, where just inside the surgeon sits at a table with a sergeant to act as clerk. He decides what disposition to make of the case, and in the appropriate column marks duty, if he considers him able to do duty, or quarters, or hospital, and whether the sickness was contracted in line of duty, yes or no. If the man is capable of some but not all duty, he is marked Quarters and the duty of which he is capable stated. The prescription for him is dictated to the clerk. When all the names are called, the surgeon officiating signs the book and hands it to the clerk to get the necessary data. Each book is gone through in this way and signed, and the sergeant hands the book to the company sergeant, who informs the men of his company how they are marked on the book. After all the books are marked and the sick prescribed for, the surgeon is through, and leaves the sergeant to make up the report for the regimental surgeon to sign and see that the sick get the medicine prescribed.

The regimental infirmary only has six beds and those are intended for the temporary protection and treatment of the ill until

they can be transferred to a field hospital. The ordinary cases of sickness remain in their own tents and come to the infirmary for medicines and dressings. When a man carried sick, recovers he is marked "duty" on his company sick book and the date of his return to duty is entered. If a soldier is excused from any duty, his case is taken up on a register card, a copy of which is forwarded to the Surgeon-General through the Chief Surgeon of the Division at the end of the month. One important duty at sick call is to watch out for suspicious cases of contagious or infectious diseases and isolate them as early in the case as possible, particularly with reference to measles, smallpox and typhoid fever. You should carefully study during your stay in the semi-permanent camps the orders providing for the sanitary and medical administration, and the means employed to effect these purposes. While in the camp of mobilization you would be called upon to assist in the anti-typhoid vaccination of the command which is compulsory in the military service. The usual sterilization of the instruments and skin is carried out and cc. 5 of an emulsion of the killed typhoid bacilli, containing 500,000,000 is injected beneath the skin, usually about 4 p. m., so that the slight reaction will have passed off by the next morning, and therefore not making it, as a rule, necessary to excuse the soldier from any duty. After ten days cc. 1 is injected, and at the end of ten days more cc. 1 is injected, making 3 injections in all. These men will subsequently give a positive widal, and therefore this diagnostic method cannot be employed in suspected cases of typhoid fever. All the men should be examined with reference to the necessity of vaccination against smallpox. The material for anti-typhoid vaccination is furnished from the laboratory of the Army Medical Museum, Washington, D. C. You should also familiarize yourself during this period with the simple tactical movements necessary to march the hospital corps detachment to desired points, the litter drill, and the prescribed method of inspecting the detachment. In order to make an inspection of value you should know every article of equipment that the members of the detachment should have. All of this information is contained in the Drill Regulations of the Hospital Corps and a copy is in the field desk of the regimental infirmary. To men such as yourselves, who have mastered the details of anatomy and the science of medicine and surgery, the acquiring of this information will be an easy task. We will assume that you have been with your regiment now long enough to know that it consists of fifty-one officers and 1,500 enlisted men, organized into 3 battalions of four companies,

each battalion under command of a major, 30 pack mules, 6 ammunition wagons 18 field wagons and four mules (extra team). Each regiment also has a mounted detachment of 15 scouts and a machine gun platoon. The Sanitary personnel in addition to the above, consists of one major, three captains, or lieutenants, 1 sergeant, first class; 3 sergeants and 20 privates first class or privates. One field wagon and one pack mule. The four medical officers are mounted and eight of the enlisted men, that is the four non-commissioned officers, and an orderly for each of the medical officers. The regimental infirmary is carried on the wagon, one ambulance accompanies the regiment on the march, and is furnished from the Ambulance Company. The regiment is now formed in column of march on the road. The senior medical officer takes his station with the regimental commander, and one medical officer in rear of each battalion, each accompanied by a mounted orderly with his orderly pouch. Of the enlisted personnel, one should ride with the ambulance driver as ambulance orderly, and the remaining fifteen should be divided into three squads of 5 men, each squad with a non-commissioned officer and two litters in rear of each battalion. So in rear of the last battalion would be one ambulance, one medical officer, one non-commissioned officer, five privates and one pack mule. Sometimes the Colonel of the regiment directs that the enlisted men of the hospital corps, except the mounted orderlies, march with the ambulance. As the rear of the column is the most disagreeable location on the march on account of dust, etc., it is customary for the battalions to alternate each day, so each battalion would march as the rear battalion in turn, and the junior medical officers should likewise march in rear with the ambulance in turn and for that day act as medical officer of the day. If a man is taken sick he is sent back to the ambulance with a pass from his company commander. The medical officer on duty there examines him and marks on the pass what disposition is made of him and sends the pass back to his company commander. If an infantry man, his arms and personal equipment are put under the seat of the ambulance. If a cavalry man, the horse, sabre and horse equipment are sent back by the non-commissioned officer who accompanied him. It is not necessary to always admit a man reporting sick to the ambulance. Very often by relieving him of the weight of his equipment he can walk in rear of the ambulance. When the ambulance is filled, any additional sick requiring transportation can be assigned by means of a diagnosis tag to the wagon train. There is a book of diagnosis tags in the orderly pouch carried by the medical

officer's orderly. Upon halting for the night, all but the trivial cases are transferred to a field hospital. The regiment will usually camp in column of company units and the shelter tents are pitched in two lines facing each other. The latrines are located on a flank of each company 50 yards away, and the company kitchens are located on the opposite flank, so as to be as far away from the latrines as possible. The regimental infirmary is located in rear of the line of shelter tents of the last company or where the colonel may direct. It is marked at night by a green lantern, and in the day time by a red cross flag. On reaching camp send those with trivial complaints to join their companies. It is required to send transfer cards with those transferred to field hospitals, and a register card is kept as a retained record. The cards on which reports of sick and wounded are made, are called by three different names. The card you retain is the register card, the copy of it forwarded to the Surgeon-General at the end of each month is called the report card, and the copy you send with a patient to the field hospital is called the transfer card and should have "Transfer card" written at the top always. We will now assume that your regiment is marching with the division beyond the advance base and expecting contact with the enemy. You will naturally be interested in how it is to be supplied with food, and what the rations under these conditions consist of. The wagon trains accompanying the division consists of first, the combat train, two wagons with each battalion carrying ammunition, entrenching tools, etc.; second, the field train, which is ordinarily divided into brigade sections which follow their respective brigades, and in case of emergency the empty wagons can be used for the transportation of wounded. When there is a probability of contact with the enemy it is assembled in rear of the column of troops of the division. It carries the baggage, two days' subsistence (haversack rations), and three days' forage for the division. The supply train, 162 wagons, follows the field train. It is divided into 3 sections, each section carrying one day's supply for the entire division. When a supply section is empty it proceeds to the supply depot as rapidly as possible. Thus there are about 50 wagons which can be utilized to evacuate sick and wounded from the front to the base each day. Each soldier under these conditions carries one emergency and one haversack ration in his haversack. As the field train carries two days' rations, the supply train three, and each soldier two, a division carries seven days' subsistence. The ration carried beyond the advance base is the haversack ration. A

ration is the allowance for the subsistence of one person for one day. The haversack ration consists of—

Bacon	12	ounces
Hard bread	16	ounces
Coffee, roasted and ground.....	1.12	ounces
Sugar	2.4	ounces
Salt	0.16	ounces
Pepper, black .....	.02	ounces

When practicable, fresh beef or mutton are issued every other day, and fresh bread from the division field bakeries. The emergency ration is to be opened only on the order of an officer and if improperly opened by a soldier the money value is charged against him on the pay roll. A division marching on a single road and expecting contact with the enemy occupies about 18.3 miles of road. It can camp on 400 acres, but in practice usually requires one square mile. The ambulance companies and field hospitals generally march in rear of the division field train, but if an engagement is in prospect they will usually precede it. The regimental medical supply wagon usually will be assigned to the field trains on the march, and the pack mule led in rear of the regiment is used to bring up supplies from the wagon to the regiment. The six reserve medical supply wagons march with the supply train. Now, as your regiment will soon go into action, let us consider the line of medical assistance from front to base along which the sick and wounded will be sent, and getting a clear idea of this you can go into action with the confidence of a man who knows what plan he is to work on, and what will be the function of each component part. The service of evacuation of the sick and wounded is divided into three zones.

COLLECTING ZONE.

1. Regimental detachments, 4 officers and 24 enlisted men.
2. Ambulance companies, 4. Each with 5 medical officers, 79 enlisted men, 12 ambulances, 3 wagons, 4 pack mules, and 4 travois.
3. Field hospital, 4. Each with 5 medical officers, 57 enlisted men, 8 wagons, capacity, 108 beds each.
4. Reserve medical supply train 1 medical officer, 11 enlisted men and 6 wagons.

All the units of the Collecting Zone march with the troops, and do not become the property of the enemy when captured but the property of the other zones is subject to the laws of war.

EVACUATION ZONE.

1. Transport column: 2 medical officers, 42 enlisted men, 12 ambulances, 1 wagon.
2. Evacuation hospitals: 2, each with 14 medical officers, 153 enlisted men, capacity 324 beds each.

3. Sanitary supply depots: 2 medical officers, 15 enlisted men.
4. Hospital train: 3 medical officers, 27 enlisted men, 10 cars, capacity 200 beds.
5. Hospital ship: Each with 5 medical officers, 40 enlisted men, capacity 200 beds.
6. Base hospital: 20 officers, 153 enlisted men, 46 female nurses, capacity 500 beds.
7. Base supply depot.

Hospital for contagious diseases, convalescent camp and casual camp—personnel determined by special circumstances in each case.

DISTRIBUTING ZONE.

1. Hospital ship and trains.
2. General hospitals.
3. Supply depots.

The whole co-ordinated by the Surgeon-General of the armies in the field.

REGIMENTAL SERVICE IN ACTION.

Let us assume that this is a regular attack on the enemy, as it will be impossible to consider all contingencies in warfare in the limits of this lecture. The field order issued the evening before will give instructions as to the hour and place the sick are to be assembled in the rear, and they will be moved as far to the rear as possible to leave the maximum capacity to the field hospitals for the wounded. When the regiment moves out in the morning at the hour specified in the field order, the ambulance that has accompanied the regiment so far, will leave and rejoin the Ambulance Company and you should remove the two boxes, one of dressings, and one of hospital stores, which is in the jockey box, and put them on the pack mule. The hospital stores consists of arrow root, liquid beef, brandy, condensed milk, malted milk, etc., which will be needed for the wounded who may remain some hours at your first aid station. The box of dressings contain antiseptics, chloroform, dressings, plaster, etc. The regimental surgeon should get authority from the Colonel to utilize the band as litter bearers during the action. When the regiment begins to get under fire, and to deploy, the medical officers, hospital corps detachment and band, assemble in its immediate rear, with eight litters and the pack mule loaded and follow the regiment. If the fire is brisk, leave the pack mule in a sheltered place with one hospital corps man, two bandmen and one litter, so in case the mule gets shot, the three men can use the litter to transport the two boxes to the first aid station when established. Stay with the regiment till the volume of fire brings it to a halt, and then establish the aid station as near as the nature of the ground will permit, and then send a couple of band-

men back to bring up the pack mule and the detachment with it. If you stop and establish an aid station as soon as you have a few men wounded, your regiment will march away and its medical service will be a failure. The slightly wounded should be sent back to the station for the slightly wounded, dressed with the first aid package that each soldier carries on his ammunition belt and with the diagnosis tag complete in every detail attached to his clothing. The severely wounded should be dressed, tagged and carried to the nearest road, where they can be picked up by ambulances or wagons, and if so badly wounded they cannot attract attention to or help themselves, leave one of your bandmen with them, with instructions to rejoin as soon as the wounded left in his charge are picked up. The modern military rifle will kill a man at a distance more than two miles, so if the sanitary personnel of a regiment decides to remain in a safe place, they will be so far away that they will be useless during the fight. When the aid station is established, the regimental surgeon with one assistant, the sergeant first class, the two medical officers' orderlies, and three privates remain in charge of it, while the two other medical officers with two orderlies, three sergeants and six litter squads with litters, remain with the regiment taking advantage of the ground for all the protection it affords and giving assistance to all they can reach. The killed should be tagged as well as the wounded, being sure to make out the duplicate before removing the diagnosis tag from the book. The dead can be identified by the identification tag that every soldier wears hung around his neck by a tape, but never remove the identification tag, as it should be buried on the body. The surgeon should keep in touch with regimental headquarters so as to learn as early as possible what the regiment is going to do. If to advance, he should send word to the Chief Surgeon of the number and character of the wounded at his station, or to the nearest ambulance company with a pencil map of the location of the station if possible, and with the information that he is immediately to abandon the station to go forward with his regiment. Take the pack mule loaded with you and leave one private first class and two bandsmen at the station until the wounded are removed. If the regiment is to fall back, remove the wounded who are in condition to be moved by using all your men including the band (36) with improvised litters if necessary, and by stragglers, to the rear. Those too severely wounded to be removed will have to be left under protection of the terms of the Geneva convention. It has a very demoralizing effect on troops to permit the wounded to fall into the enemy's hands, and

should only be done after careful consideration in each case. The material you will have to work with under fire will be the first aid package each soldier wears and the contents of the hospital corps pouches and the orderly pouch of your orderly. The latter contains a hypodermic syringe with the usual alkaloids, a pocket case, an elastic tourniquet, a four ounce bottle for sterile water for hypodermic injections, besides surgeon's plaster, dressings, chloroform, etc. Each of three sergeants carries an emergency case with medicines, hypodermic syringe, needles, ligatures, etc., and each man should have a canteen of water. As soon as any wounded reach the dressing station, the surgeon should promptly establish communication with the nearest dressing station by sending back and guiding the litter bearers of the Ambulance Company, that established the dressing station, to his aid station. The regimental Sanitary detachment should not be permitted to work any further to the rear than the regimental aid station. If they do they get out of hand and if it is necessary to send a case back at once use some of the bandsmen. The men reaching the aid station, with diagnosis tags on, but so slightly wounded that they can be sent back to the regiment, remove the diagnosis tag before they leave. The object of the diagnosis tag is to cover the history of a wounded soldier from the firing line to the field hospital. After admission to the hospital his case is taken up on the regular records and the diagnosis tag removed.

Sometimes the terrain affords so little protection and the fire is so severe that it would be foolish to attempt to remove the wounded, as they and the sanitary personnel would be more exposed than the combatants. A wounded man lying flat on the ground will rarely be hit, and can himself or with the aid of a comrade apply the first aid dressing. Under these circumstances it is better to wait till dark to remove the wounded or till the fire lessens by the retreat of the enemy. I employed this method in our attack on Tientsin, China, where our regiment lost 23% of the men engaged while advancing over a level plain. The wounded were sheltered in irrigating ditches, behind Chinese burial mounds and any inequality available, and when dark came were all removed without the loss of a man. In the fight at Yangtsun on our way to Peking, I moved the wounded forward all day, in three successive stages, till I reached the camp of the troops for the night, because I saw the enemy were retreating and it was necessary to reach camp because there the junks carrying our supplies would rendezvous and I had to depend on floating the wounded in these junks down the Pei Ho to our base hospital at Tientsin, as we

had but three ambulances with the expedition so we could neither take the wounded with us nor leave them. I mentioned these two instances to illustrate the idea that the general plan described in this lecture can but be regarded as general guides or principles that must be modified to suit the peculiar circumstances of each case. Always bear in mind that the efficiency of the regimental sanitary personnel is to be gauged by the promptness with which the wounded are evacuated from the firing line to the rear so as to disembarrass the regiment of its wounded. Therefore the work at the aid station must be limited to the application of first aid dressings, the control of hemorrhage, the application of splints, rearrangement of dressings previously applied, and the use of restoratives and narcotics.

If your orderly is sent back or wounded or shows any inclination to quit the game, take his orderly pouch and carry it yourself so that you will not be left without a hypodermic syringe or a little chloroform or dressings. I was so anxious on this point in the San Juan Hill fight that I carried a gunny sack of bandages and dressings, etc., over my shoulder throughout the advance and do not know what I would have done without them. Sometimes you have to chloroform a patient to send him back to the rear and in the instance mentioned I had to chloroform an officer on the field who had been shot in the spine with shrapnel and was screaming with pain. I have also had to give hypodermic injections of morphine on the field in cases of gunshot wounds of the abdomen which in some instances are very painful. I cannot accent too strongly the great importance of sending men back to assist the litter bearers of the ambulance company to find your aid station and if you sit down and wait for them to find you, you may have a long time to wait. Such stations are naturally located in protected situations and in low places and depressions not easily found. My experience is that the wounded locate the position of the aid stations with more regularity than the surgeons, as they naturally drift back along the most protected route, and it would be well to move your station if already located, to where it is discovered the wounded are instinctively assembling. Another point of practicable importance is that if it appears that the wounded will remain at the station during part of the night, prepare what you have to cook for them before it gets dark if possible, because if your lines are near the enemy at dark, orders are almost certain to be issued not to light any camp fires, because fires will draw the rifle fire of the enemy, even draw artillery fire, and that was my actual experience the night of the battle of Santiago.

I did not get all my wounded sent back till 2 o'clock that night and orders forbade any camp-fires being lighted. Never send in your battle report of casualties until you have compared your list with that of the regimental adjutant who gets reports from each captain of a company. Your report will be much more accurate by doing so, and so will the adjutant's. As soon as the battle is over it is a good plan to send back a mounted non-commissioned officer to find and direct the wagon containing the regimental infirmary, where to find the regiment, and so get possession of your equipment again, as you cannot tell where the field train that the wagon is with may be sent and unless the driver received different instructions he would remain with the field train. One more point: Do not try to send in your litter bearers during a fight to points where you are not willing to lead them, because they will not get there, but they will usually go anywhere an officer will lead them.

DRESSING STATIONS.

Regulations provide that one medical officer may be detached from each regiment for duty at the dressing station or field hospital. Anyone of you may be that officer, so it is necessary to consider the work at the dressing station. The dressing station is established by an Ambulance Company under instructions of the Chief Surgeon of the division or by the Director of Ambulance Companies. You no doubt remember that there are four ambulance companies to a division under command of a major of the medical corps who has the title of Director of Ambulance Companies. An ambulance company consists of five officers, two sergeants first class, seven sergeants and seventy privates. The transportation comprises twelve ambulances, three field wagons, four pack mules and four travois. One officer, two non-commissioned officers and twenty privates are on duty with the transportation, thus leaving four officers, seven sergeants and fifty privates to make up the dressing station party and the litter squads, usually sixteen litter squads. An Ambulance Company can transport 128 patients in one trip with all the ambulance patients sitting up, and twenty patients carried on litters and the four travois, recumbent. The dressing station is established as far forward as protection can be found, one for each brigade, and under very favorable conditions of terrain may be merged with the aid stations. They should not be located close enough to the battle line to become involved in the fluctuations of the line. The litter squads bring the wounded from the aid stations to the dressing stations, the latter thus constituting a second line of assistance. Emergency surgery only should be done here but a careful

classification of the wounded should be made, and the slightly wounded directed to the station for the slightly wounded and those able to walk to the field hospital required to do so. A dressing station may be occupied for one or more days, consequently shelter for the wounded will be required, and if practicable to locate it near buildings that can be used for this purpose it should be done. The additional tentage, hospital stores, etc., can be transported on the four pack mules. The ambulances transport the severely wounded to the field hospital. Effective shelter from fire is required for the station but a location need not be condemned because ambulances cannot reach it without being exposed to the enemy's fire, as the greater part of the work of the ambulances is after the battle is over. The work of the dressing station is carried on under the following departments:

Dispensary.

Kitchen.

Receiving and forwarding department.

Slightly wounded department.

Seriously wounded department.

Mortuary.

As soon as possible arrangements will be made at once for the preparation of food. All wounded should pass through the receiving and forwarding department and disposed of according to classification. A memorandum showing the number of patients received and their disposition will be kept in the receiving and forwarding department. During the night when firing has ceased the ambulances and litter squads can be pushed forward to the regimental aid stations and when these are cleared, even to the battle field and then reenforced by the regimental Sanitary personnel. If the enemy has retreated, the severely wounded, not capable of transportation, should not be sent back, but should be collected on the field and the officer in charge should send back word to the Chief Surgeon of the division of the number and location of these with a view to having a field hospital moved to the battle field instead of moving these men to the hospital. It may at times be practicable to move a field hospital to the dressing station if there are a sufficiently large number of wounded there undisposed of to make it advisable. When this is practicable the Chief Surgeon should be so informed. In case of a retreat, with the dressing station full of wounded, leave sufficient sanitary personnel and supplies to provide for their immediate necessities and withdraw all the rest with the retreating brigade.

FIELD HOSPITAL.

There are four field hospitals with a division under command of a

Director of Field Hospitals, of the rank of Major. He usually accompanies the most advanced hospital, but proceeds from hospital to hospital as the exigencies of the situation requires and should maintain communications with the Director of Ambulance Companies, and with the Chief Surgeon of the division; with the former to enable that officer to make suitable arrangements for the removal of the wounded from the front, and with the latter to arrange for the prompt evacuation of field hospitals by the transport column to the evacuation hospitals. The primary function of the field hospital is to receive seriously wounded from the regimental aid stations and the dressing stations, and preparing them for transportation to the evacuation hospitals on the line of communications. While on the march and in temporary camps the division hospital is the collecting point for the sick and injured who are unable to continue the march and must be provided for until they can be turned over to the medical service of the line of communications or a local hospital. Only one hospital at a time is used for this service and only enough of it unpacked to provide for the sick and the hospital attendants who are to remain behind when the division moves on. As soon as the patients are disposed of, the field hospital or such portion of it as was left behind rejoins the division. Each field hospital when the battle is about to begin should reach its designated place as promptly as possible, but not unload from the wagons till orders to do so are received. Changes in plans might make it necessary to direct them to some other location, and it requires considerable time to set up and take down a field hospital. Field hospitals should be easily seen and reached from front and rear, yet not in the way of troops and trains. If buildings can be utilized only unpack as much tentage as is needed to supplement, or none at all. An ample supply of water will be needed and will usually be found near dwellings. If the enemy retires the field hospitals held in reserve can be moved to a dressing station having the most wounded or to the battle field, as previously stated. Only one field hospital will be opened early in the battle, the others held in reserve on the wagons till needed. As soon as opened organize a dispensary, kitchen, receiving and forwarding department and next to it a transportation department, with assembled transportation, slightly wounded and severely wounded department operating room, and mortuary at some distance off.

Send the slightly wounded able to walk to the rear and listen to no tales of woe from this class. It is the business of the Chief Surgeon to provide a place for them, and not the duty of a field hospital.

Remember that these field hospitals are for the temporary treatment of wounded, so only such surgical operations should be done as will fit the patients for transportation to the rear and the hospital should be evacuated as rapidly as possible. Assemble the severely wounded, unable to bear transportation in one hospital if practicable, so that the other hospitals can move forward with the division should it advance, and notify the Chief Surgeon with regard to the hospital left behind so that he can communicate with the Chief Surgeon of the line of communications with the view of relieving the personnel and material of the hospital left behind, and send forward its equipment to join the division. The field hospital that has now become fixed is a part of the evacuation hospital. Field hospitals are located three or four miles in rear of the dressing stations during a fight so as to be beyond the range of small arms and field artillery. In case of a disaster and retreat, the hospital containing the severely wounded incapable of bearing transportation must be left to fall into the enemy's hands, detailing the necessary Sanitary personnel to remain with them to insure their receiving proper attention. By having the wounded classified in the receiving and forwarding department it will be easy to collect this class either in one hospital, or one section of the same hospital. You will be instructed as to what disposition the enemy will make of a captured field hospital, in a subsequent lecture. The field hospitals are evacuated into the evacuation hospitals, two to each division by the transport column, but as soon as you get beyond the field hospitals to the rear, you have left your division and are now in the domain of the Chief Surgeon of the line of communications.

In case a retreat of the division is ordered, the Chief Surgeon of the division will know it and will promptly arrange through telegraphic communication, established by the signal troops, with the Chief Surgeon of the line of communications for the evacuation of all field hospitals containing wounded capable of bearing transportation. Under the conditions of modern warfare it is hardly possible to conduct a campaign without railroad transportation, so it is quite probable that hospital trains will principally be employed rather than transport columns which will materially simplify the working out of the problem of evacuation.

STATION FOR THE SLIGHTLY WOUNDED.

This is a new feature in our service and is considered of such importance that its location is usually specified in the Field Order so that the entire division may know of its location. It should be located

just beyond the field of losses and in the safety zone, but not near any of the field hospitals, as its object is to prevent the field hospitals from being overwhelmed by this class of cases, and the sick unable to continue at the front, but who after rest and refreshment would be able to proceed to the base, and it is such cases that would be the first to arrive at the field hospitals if permitted to do so and would therefore leave no accommodations for the severely wounded. We could usually count on from 300 to 600 of such cases, and if the latter number it would represent the entire accommodations of the four field hospitals of the division. The slightly wounded may be defined as those that do not require immediate hospital care and shelter and are able to march some distance. It should be located at some point through which the troops have marched and well known to them, such as a village, cross roads, etc. There is no provision made in regulations for manning this station, nor would it require much of a force, as nearly all would have been dressed with a primary dressing before arrival. One medical officer and ten enlisted men would be sufficient with one detached service chest and a box of reserve dressings.

The food and other supplies to be obtained from the reserve medical supply train. No surgical service of any consequence is to be performed there, but it is important that a systematic service be established by arranging a receiving and forwarding section. Those that have not been through the hands of medical officers should be dressed and receive diagnosis tags which will constitute a passport further to the rear. Severely wounded should be transferred to a field hospital, malingerers, and those with such slight injuries or sickness as to enable them to continue at the front, should be returned there, and the tendency will be by these means to prevent skulking and straggling of men with insignificant injuries. A kitchen must be improvised and food furnished from the supply train. Shelter can be obtained in the town or village in which located. With those sent to the rear some vehicles should be sent for those who fall out and are unable to proceed. It may be necessary to commandeer vehicles in the vicinity to carry out this purpose. The Chief Surgeon of the division selects the location and provides for the establishment of the station for the slightly wounded for his division.

LINE OF COMMUNICATIONS.

Each field army has its own line of communications in command of a general officer with necessary troops as guards, a Chief Surgeon, evacuation hospitals—two to a division, each with a bed capacity of

324, rest stations under charge usually of the red cross, one base hospital, to each division, of 500 beds. As troops advance from the base the line of communications is formed and its head should not be more than two days' march in rear of the troops. As the line extends a chain of stations about fifteen miles apart is established and at the head of the line an advanced base of all kinds of supplies.

The rest stations at about fifteen miles intervals are for the benefit of those of the sick and wounded giving out or requiring emergency operations while being transported to the base and its physicians and nurses are provided by the Red Cross Association, whose affiliation with the army in campaign is now authorized by an act of Congress. The convalescent camp at the base is administered by the personnel of the base hospital and is for those who have recovered from their illness or wounds but have not sufficiently regained their strength to return to the front. The casual camp at the base is for enlisted men of the hospital corps, either awaiting transportation to the front or awaiting transportation home, from expiration of term of enlistment or other reasons, and experience demonstrates that it is a very necessary adjunct. The base hospital is for the care and treatment of the sick and wounded and is charged with recommending the sending to the general hospitals in the interior of the home country those who are so disabled as to be unable to further serve during the campaign and to the front those who have recovered. The transport of the disabled to the general hospital is by hospital ships and hospital trains, each with a capacity of 200 beds. The disabled on reaching the general hospital are entirely out of the theater of military operations, and those not recovering sufficiently to further serve are discharged on certificate of disability and sent to their homes and finally get on the pension list. The general hospitals in number and size are proportional to the necessities of the war. It is intended to take care of six per cent of the wounded and sick in the theater of operations and four per cent in the general hospitals.

It will not be practicable to discuss the Subject of Camp Sanitation without extending this lecture to unreasonable length, and I am aware of the fact that the members of this organization are thoroughly familiar with the principles of preventive medicine and sanitation, and it will be quite feasible for them to familiarize themselves with the methods and agencies peculiar to troops in campaign under the instruction and guidance of the regimental surgeon during the period of preparation and organization of the camp of mobilization. It is hardly likely that a member of the Medical Reserve Corps will

have the entire responsibility of the regimental sanitation thrust upon him on first joining his regiment, and so will have an opportunity to adapt his sanitary knowledge to the peculiar exigencies of the occasion. I have not discussed the details of the medical equipment and supplies in this lecture, as the subject will be demonstrated in a subsequent lecture of the Winter Course.

Authorities: "Army Regulations."

"Field Service Regulations."

"Manual Medical Department."

"Medical Service in Campaign (Straub)."

"Orders and Circulars War Department."

"Circulars and Letters of Instruction, S. G. O."

OBSCURE FEVER OF RENAL ORIGIN.*

By DANIEL N. EISENDRATH, M. D.

ATTENDING SURGEON MICHAEL REESE AND COOK COUNTY HOSPITALS,
CHICAGO, ILLINOIS.

We are accustomed to think that we must have general or local symptoms or some definite laboratory findings in every patient who shows a transitory or persistent rise in temperature. The busy practitioner, even in our larger cities, with all modern diagnostic aids at his disposal, is as apt as his less fortunately endowed rural colleague to treat an obscure case with fever as malaria, typhoid, cryptogenetic sepsis, or what not, for days and even weeks. A careful examination of the patient with the exclusion of one organ after the other as the cause of fever would result in an early diagnosis being made in many cases which are recognized too late for surgical interference to be of any avail. My object in presenting this paper is to direct your attention to a group of cases in which the source of the fever is in the kidney, but the absence of any localizing signs pointing to the urinary tract makes a diagnosis very difficult unless one happens to think of such an origin. I became interested in these cases of obscure fever of renal origin through the following experience:

A man of fifty was seen on August 18, 1909, on account of a post-operative hernia following an acute appendix removal six months previously. Upon admission to my service in the Michael Reese Hospital, it was noted that the patient was pale and that his temperature was 102° F. Following his appendix operation he had post-operative chills and fever, and these had recurred at irregular intervals since that time, i. e., for six months, the last one occurring on the night before I saw him. A most painstaking search was made to find the source of these irregular chills and fever which had greatly exhausted the patient's strength. There was a moderate degree of leucocytosis (16,000). There were no local evidences of infection in the vicinity of the former operation scar. The blood examinations for malaria and typhoid were negative. The possibility of the presence of a right subphrenic abscess following the appendiceal infection was thought of, but the local examination proved this diagnosis to be untenable. There was no tenderness over the kidneys or along the course of the ureters or base of the bladder. Here was a patient with persistent and recurrent chills and fever, without a single local-

*Read before the Southern Illinois Medical Association, November, 1912, and reprinted through courtesy of the *Southern Illinois Practitioner*.

izing sign. The urine contained a small amount of pus, but in the absence of other urinary symptoms little significance was at first ascribed to it, until we traced back his history for a number of years prior to the appendix operation. Facts were thus obtained which again emphasized the necessity of a detailed history of every obscure case. He told us that fourteen years before consulting me he had first noticed a very severe pain on the right side of the abdomen. Blood was found in his urine and a few days later he passed a calculus. A second attack occurred two years later, another two years after that second attack, each lasting two to three days. These few data apparently bore no relation at first to his present fever, because the last attack of renal colic had occurred ten years before. Even in the absence of any recent symptoms pointing to the kidney as the source of the present fever, an X-ray of the entire urinary tract was made, and two shadows were found on the left side, one indicating a stone in the upper ureter and a second one in the kidney itself. With these shadows as a basis, the left kidney was exposed (after the hernia had been repaired), and a calculus, the size of a bean, found firmly impacted in the ureter just below the pelvis of the kidney. The second calculus was found loose in the renal pelvis. The post-operative course was uneventful. The temperature dropped to normal and remained so, and the patient gained rapidly in weight and strength. The most plausible explanation for his fever was that the presence of the calculus caused almost complete obstruction of the left ureter, with subsequent infection of the renal pelvis and parenchyma. The removal of the calculus permitted free escape of the previously stagnant urine. This patient has remained well since the date of operation, three years ago.

I have had the opportunity of observing a number of similar cases during the past few years where a diagnosis would have been practically impossible if we had not thought of some condition of the kidney as the source of the temperature. The kidney affections in which fever is likely to occur without localizing signs are:

1. Infections of the kidney following any obstruction of the urinary stream, whether it be due to some cause within the ureteral lumen, like a calculus or a stricture, or some extrinsic cause like a neoplasm, pregnant uterus or adhesions which compress the ureter.
2. Infections of the kidney where the organisms are carried to the kidney through the blood current. Some of the most rapidly fatal cases of high temperature with other symptoms of severe sepsis,

but no localizing signs indicating the kidney as the seat of infection belong in this group.

3. Infections of the kidney without apparent obstruction of the ureter. In this group belong those of high persistent temperatures in children, without absolutely a localizing sign pointing to the kidney, and those cases with recurrent chills and fever, called by Vanderhof "pseudomalarial" pyelitis.

4. Malignant neoplasms of the kidney. The fact that tumors of the kidney are very apt to show high and persistent temperatures is but little known. Israel was the first to call attention to this symptom, and I have observed this one of my own cases and in a second one of Drs. Harsha and Lawrence, to whom I am indebted for the privilege of including an abstract of the case in this paper.

A baby girl of fourteen months was seen by Dr. Lawrence on January 20, 1911, on account of a high fever which had persisted for two days. The baby seemed drowsy, but there was no pain or other localizing sign pointing to the kidney as the source of the temperature. Examination of the abdomen showed a mass below the right costal arch extending to below the level of the umbilicus. The temperature was 104.8° F., pulse 176. White blood count, 32,300. The abdomen was opened under the diagnosis of an appendiceal abscess, but only a large retroperitoneal tumor, evidently a neoplasm of the kidney found. The abdomen was closed again, but ten days later a transperitoneal nephrectomy was performed. The microscopic examination showed a form of sarcoma, i. e., embryoma. Following the first operation the temperature ranged between 102.6° F. and 105.6° F. for the first two days, and from 99° F. to 102.8° F. during the following four days. After the nephrectomy the temperature remained between 102.5° F. and 105° F. daily, and just before death it rose to 107.6° F.

Israel has observed nineteen cases in which the clinical course was accompanied by fever. There are three types of fever in renal tumor cases: (1) A remittent or intermittent form, resembling the hectic form of pulmonary tuberculosis; (2) a recurrent type, and, finally (3), attacks of fever accompanying the passage of blood. We are chiefly interested in those cases in which there are no localizing signs, such as tumor or hematuria, and the case of Drs. Lawrence and Harsha quoted above shows the necessity of a thorough examination in cases of obscure fever in infants. The fever in these neoplasms is evidently a direct result of the malignity and not of secondary infection and may persist even after removal of the tumor as in the above case.

I could continue to cite cases from my own experience which would illustrate every one of the etiological groups. One must consider the kidney as the source of fever, even though there be no localizing signs, such as tenderness, enlargement and muscular rigidity, in every case where we have excluded other diseases, etc., by the various methods of clinical and laboratory examination. I need only remind you that the high temperatures in infants and young children, in the pregnant or parturient woman, in many of our post-operative cases, may be due to infections of the kidney, without a single local symptom. Let me briefly quote a most instructive case, which puzzled us following an operation.

I had operated upon a man of forty for a right inguinal hernia and hemorrhoids. His temperature after operation remained normal for twelve days. It then rose to 101° F. and on the evening of the sixteenth day was 103° F. There was a slight wound infection, but not sufficient to account for his fever. He left the hospital with an evening temperature of 101° F. His wound was healed, but he returned in ten days with a temperature ranging from 102° F. to 104° F., with no localizing symptoms. Careful examination of the abdomen showed the left kidney somewhat enlarged and tender, but the patient had no spontaneous pain. A diagnosis of left-sided kidney infection was made and confirmed at operation. An old narrowing of the ureter probably of congenital nature, was found close to the renal pelvis. The kidney was found to be the seat of an old-standing infection with dilated calyces, etc., indicating an infected hydro-nephrosis. If we had not thought of the kidney as the source of the obscure fever, we would no doubt have lost our patient or, at least, waited until operation was too hazardous a procedure before making the diagnosis.

I will feel amply rewarded if this paper will serve to call your attention to the possibility of an infection or tumor of the kidney in those cases in which a careful examination has failed to find any other source of the fever. In other words, the diagnosis must necessarily be one of exclusion.

Obituary.

DR. JOHN GUERIN.

1838-1913.

There are few physicians to whom it is granted to live a longer and fuller life than was granted to Dr. John Guerin. He was born in Limerick, in Ireland, on May 28th, 1838, and came to America with his parents when he was twelve years old. The family settled at Bangor, in Franklin county, New York, where he attended the district school. It was a time of great educational activity in New York and this revival reached remote district schools in the very border of the "great woods" where the Guerins settled and made a farmstead. John was an impetuous youngster, and in chopping wood got a severe scalp wound over his eye which resulted in a scar he carried the rest of his life.

One autumn he went to school at the Malone Academy, but had hardly finished his first term when he was appointed on a competitive examination to a county scholarship in the State Normal School at Albany. His teacher helped him to finance this venture to the extent of one hundred dollars, and he went to Albany in the winter of 1859-1860. Within a year he was sent out by the normal faculty from the school to a very responsible, and to him a very remunerative, position. This gave him funds to complete his normal course, and he graduated in the spring of 1861 and received his state certificate.

He returned home to Bangor for a few weeks only, and soon bought a ticket to Milwaukee, Wisconsin. He stopped in Chicago on the way, but could find nothing to do. The cheap hotel where he stopped was crowded and dirty and he was greatly discouraged with the city. He went on to Milwaukee after a few days, where he hired out at a dollar a day to Daniel Newhall, who built the Newhall House, to work in his grain elevator. The work was very dusty and Guerin was afraid of consumption and very uncomfortable. He took his pay at the end of eight days and went on to Beaver Dam, Wisconsin, where he worked on a farm for small wages a year and a half.

In the spring of 1863 he returned to Chicago with the intention of studying medicine. He became acquainted with one of the priests who conducted a school known as St. Mary's by the Lake, who greatly appreciated Guerin's mastery of mathematics and engaged him for the next year. The hours required for his teaching left him ample time for his medical studies, and the distance between Rush Medical Col-

lege, which was then at Dearborn and Indiana streets, and the Cathedral School on Superior street, was trifling to an active young man. He did not refuse during the following year to undertake the complete discipline of the boys at St. Mary's by the Lake and to teach them more than two hours every evening in physics, chemistry and mathematics. During the rest of his life he always took the liveliest interest in teaching and especially in the teaching of mathematics, and he was accustomed to attend the mid-winter meetings of the teachers of mathematics held during the last ten years at the University of Chicago. It was a recreation to him to work over an algebraic problem when confined to relative solitude by the expectancies of his large obstetrical practice or by the other watching hours of his medical pursuits.

In the spring of 1866, John Guerin came up for his final examinations before Dr. Daniel Brainerd, Dr. James V. F. Blaney, Dr. R. L. Rea, Dr. De Laskie Miller, Dr. Edwin Powell, and Dr. Jos. W. Freer. The examinations were held in one of the doctors' offices. The students were called in alphabetical order, and Guerin was twenty-ninth on the list in a class of ninety. Each man of the faculty put one or two questions to the candidates, answers to which were required to be given orally on the moment, and no hesitation was tolerated. As each candidate escaped from the examining room he was again quizzed more rigidly if possible by his anxious classmates who had not yet been called. George A. Clarke, George M. Chamberlain, N. T. Quales, Charles True and M. W. B. Witherspoon graduated with him. Many others of that class have attained professional distinction.

Dr. John Guerin, with his medicine bag and his silk hat and Prince Albert black coat, opened an office at once on Archer avenue near State street and began the practice of medicine in earnest. He was a most avaricious reader and a close observer. Every day he visited the County Hospital, which was then only a short walk from his office, on 18th street west of Clark street. He soon began to have patients, and one of the first of them, a German saloon keeper, became a fast friend and was able to help him soon in a difficult diagnosis. It was in the autumn of 1866 that the cholera broke out in Chicago. During July of that year cholera appeared on the coast, and on August 6th Christian Hansen was abandoned in a Chicago railway station by a company of Mormons on their way to Utah. He was taken to the County Hospital and was probably the first case of cholera admitted there. He died within five hours (Bevan, J., *Chicago Medical Journal*, Oct., 1866, p. 450). There were 319 deaths in Chicago during June, 1866, of which 36 were intestinal; in July the deaths were 940,

516 intestinal. During September there were 1,170 deaths, during October 1,170, and then the death rate became normal very rapidly. There were five cases of sickness scattered about the city on the 8th, 9th and 11th of July that in the light of the subsequent epidemic are presumed to have been cholera (Davis, N. S., *Chicago Med. Jour.*, Oct., 1866, p. 475). Early in August on a hot, sultry Monday night Dr. Guerin was called to the second floor of a flatiron-shaped building on the corner of Archer avenue and Twenty-fourth street to see a sick man. This man had been to a picnic the Sunday before on the outskirts of the city and was taken sick Monday afternoon with all the symptoms of cholera. He was now cold, collapsed and almost voiceless but perfectly rational. Dr. Guerin had been reading about cholera but he had, of course, never seen a case. He bethought himself, however, of his German saloon keeper patient friend, who had been through an epidemic of cholera in Europe. The saloon keeper was brought to the room and confirmed Dr. Guerin's diagnosis and added further in prognosis as soon as he had looked at the patient that the man would not live three hours. When the bodies of this man and his wife, the first diagnosed cholera patients in Chicago, were carted away Tuesday afternoon, the entire contents of the room, bed, bedding, furniture and clothing, were all taken out into the street and burned. This neighborhood, however, became the center of an extensive cholera epidemic that lasted until cold weather checked it. Dr. Guerin stood by through it all and earned the loyal regard of his neighborhood. Early in the course of lectures at Rush in 1866—it was on October 8th—Dr. Daniel Brainerd came into the lecture room a little late and artificial light was necessary, when he, deflecting from his regular surgical lecture program, gave a very vivid lecture on cholera. He went home to the Sherman House immediately, had dinner and conversed happily with his friends, but he was taken down with the disease at midnight and died the next morning at 9 o'clock.

In 1878 or 1879 Dr. Guerin became a member of the staff of Cook County Hospital and continued his service there for many years. His work was of highest quality and showed his extensive reading of the medical literature. He was very popular with his internes and devoted much time to them. His first service was in obstetrics. At that time there were only five or six obstetrical cases taken into the County Hospital each month because the death rate from puerperal fever was more than 50 percent. He found, when he came on duty, three patients had been recently delivered and three patients were waiting delivery in the wards. The dreadfully septic condition of the obstetrical ward was recognized by him immediately and he removed

all of the patients to temporary quarters, closed and fumigated the ward, destroyed all the mattresses and most of the furniture and refitted the ward with new material and fumigated the operating room daily. He introduced sublimated obstetric dressings and used the spray very vigorously during labor; he required all of his patients to have daily antiseptic baths and stretched a rope across the stairway to the obstetrical ward and allowed nobody to enter except himself, his internes and his obstetrical nurses. In this way he conducted his work for a year and a half without an obstetrical fever in the ward. Temperature charts were used by him on every case and sixty successive cases showed only two rises in temperature.

Another valuable service which he rendered the County Hospital was his co-operation with Dr. Leonard St. John in initiating the competitive examination for the selection of internes, a method which has prevailed from that time to this with scarcely a breath of scandal. He was president of the Board at that time, and it was largely through his diplomatic and determined effort that this prophecy of civil service was brought about.

He was on the staff when Dr. Christian Fenger came to Chicago from Egypt and was appointed the first pathologist to Cook County Hospital. It was greatly to his credit that he recognized the superior ability of Dr. Fenger and was one of the first to make Fenger's valuable services available to the public. When the Board of County Commissioners were under trial for the grafting which sent most of them to the penitentiary during J. J. McGarigle's administration, the members of the County Hospital staff began to discuss their political positions and Dr. S. A. McWilliams put a resolution before the medical staff pledging themselves to stand together. Dr. Guerin, who was president of the County Hospital staff at that time, left the chair and after making a brief speech made a motion that every member of the staff file with the president of the County Board an affidavit that he had never paid any money nor given any other consideration in order to secure his appointment. Within twenty-four hours these affidavits were in from every member of the County Hospital staff except from Christian Fenger, who wrote a humble apology to Dr. Guerin saying that he had paid Commissioner Fitzpatrick \$400 to secure his appointment, which money he had borrowed for that purpose from the Danish consul, Dr. Jacobson, believing that this honorarium to the commissioner was the custom of the country.

Dr. Guerin was a liberal, enlightened and devoted Roman Catholic all his life. He read religious, philosophical and ethical literature extensively and had many very close friends and a wide acquaintance

among the leaders of the church in America and in Europe. He spent many months at various times in European travel and residence, and his two great interests there were the church and the hospital. In Paris he was a daily attendant at the clinics long after he had given up the practice of medicine entirely.

It is not at all my plan to do more than give an idea of "the doctor-man," and therefore one more incident will end my recital.

When Edw. F. Dunne became Mayor of Chicago he appointed Dr. Guerin to a vacancy on the Board of Education. He devoted an enormous amount of his time to this gratuitous service and did it without a murmur of complaint. Place seekers, were they Irish and Catholic, or Russian and Nihilist, received the same short and righteous dismissal. Complaints of injustice were patiently considered and equitably disposed of. He was very critical of lazy teachers and shiftless teaching, and his ideals of a teacher and of a school were very high and commendable. On the building and grounds committee he did some of his best work. The newspapers often misjudged and misstated his position, but he went on with what he considered his duty, regardless of featuring of his expressions or sensationalizing his demands.

He was a man who met every obligation in life with cheerfulness and urbanity—an ideal Irish American. He was a physician who kept informed of every advance in our science and welcomed every new and rational hygienic, medical or surgical procedure. His relations to his patients were ideal. His conduct to the profession was on the highest plane. He did not read papers very often and published very little, but he was a constant source of inspiration to his internes and his followers, and none of them will fail to profit by his enthusiasm and his devotion.

He died at Memphis, Tennessee, Jan. 3, 1913.

BAYARD HOLMES.



THE
CHICAGO MEDICAL RECORDER
AND
JOURNAL OF THE MEDICO-LEGAL SOCIETY
Pullman Building, CHICAGO

EDITORIAL BOARD

DR. E. W. ANDREWS	DR. FRANKLIN H. MARTIN.
DR. FRANK T. ANDREWS.	DR. JOSEPH MATTESON.
DR. CHARLES C. BEERY.	DR. FREDERICK MENGE.
DR. R. W. BISHOP.	DR. THOS. J. WATKINS.
DR. JAMES BURRY.	DR. SAMUEL C. PLUMMER.
DR. HENRY T. BYFORD.	DR. ARTHUR R. REYNOLDS.
DR. FRANK CARY.	DR. HOMER M. THOMAS
DR. E. J. DOERING.	DR. H. H. FROTHINGHAM.
DR. JUNIUS C. HOAG.	DR. OTTO L. SCHMIDT.
DR. FRANK S. JOHNSON.	DR. D. A. K. STEELE.

DR. A. CHURCH.

COMMITTEE ON PUBLICATION

E. J. DOERING	HENRY T. BYFORD
A. R. REYNOLDS	

Vol. XXXV. No. 1.	PUBLISHED MONTHLY.	SINGLE COPIES 20 CTS.
NEW SERIES.	Chicago, Ill., January 15, 1913.	\$1 A YEAR IN ADVANCE.

Editorial.

CHICAGO DRAINAGE.

News dispatches from Washington at the time of writing indicate that the Secretary of War will refuse the request of the Sanitary District of Chicago for a flow of 10,000 cubic feet per second from Lake Michigan through the Chicago river and the Calumet river, and that the Government has evidence that the flow already allowed—4,166 cubic feet per second—is being exceeded and must be reduced to the amount of the permit.

The decision of the Secretary need cause no great surprise, for the canal to connect the Calumet is not yet dug and to increase the flow in the Chicago river would be disastrous to shipping in that stream. Since the canal was opened for the flow of water in January, 1900, there has been halting and hesitation in carrying out the plain provisions of the law, in providing an adequate channel connecting the lake with the main Drainage Channel at Robey street. The policy

of the Board in 1900 was to widen the Chicago river from Robey street to the lake, to a width of 200 feet and to a depth of 26 feet in the center. Most of the widening is done, but in one spot it is still only 90 feet in width and at every bridge the channel is narrowed down to 140 feet by the abutments. No greater volume of water can flow through the Chicago river now than in 1900, although thirteen years have elapsed.

If the flow from the lake is reduced as suggested in the Washington dispatches it will lessen the dilution of the sewage, and also may reduce the amount of power that is produced at Lockport and force the Sanitary District into a violation of contracts made for the sale of light and power. The power plant has cost about \$5,000,000, and its construction was evidently premature. It would have been better had this money been spent in buying the land and widening the Chicago river to 200 feet, even if an exorbitant price had been paid. It would have been time enough to build the power plant after the full flow of water contemplated by the original law of the state of 1889 had been established.

By international treaty between the United States and Great Britain, promulgated in 1910, three uses of the international waters are recognized. The first is for domestic and sanitary purposes, the second is for navigation, and the third and last is for irrigation and power.

The questions arising in the Illinois river with reference to the removal of the state dams that back up the water and make overflow have been gingerly dealt with, and all to the great injury and prejudice of Chicago. The original intention of the law creating the Sanitary District of Chicago was two-fold, to create a ship canal and to take care of the drainage of Chicago for all time, and it has not yet been satisfactorily demonstrated that the law was not conceived in wisdom. Engineers of the Sanitary District have gravely recommended in effect that we have now about reached the limit of sewage disposal by dilution through the sanitary canal and should at once begin the construction of stations for the purification of sewage. This treatment of sewage will be tremendously expensive, although the Supreme Court of the United States has decided that the Sanitary Canal as constructed is a part now of the Illinois and that the right of Chicago to discharge sewage into it is the same as that of Peoria.

The subject is a large one and only so much is said here as may show the physicians that in the matter of sewage disposal we have

been living in false security, and that they should wake up and inform themselves of the real situation as well as be aroused into action.

DR. GEORGE W. WEBSTER.

Dr. Webster has been a member of the State Board of Health of Illinois for the past thirteen years. Twelve years of the time he has been President of the Board. Dr. Webster has been indefatigable during all these years in his labors. His public utterances and the results of his investigations upon such vital questions as occupational diseases, the alcohol problem and its practical relations to life, pellagra in Illinois, and vital statistics would fill a respectable volume, respectable as to size and superior as to the matter itself.

Dr. Webster was in the thick of the battle that has given the state free diphtheria antitoxin. It was a fierce battle too, for those interested in the profitable sale of antitoxin were at Springfield in force. He is now working on an amendment to the Medical Practice Act, to be presented to the legislature, that will permit midwives to make a temporary application to the eyes of the new born for the purpose of preventing blindness. Also he is working on a law that will permit the State Board to furnish free antityphoid vaccine, and a comprehensive law upon vital statistics, and the registration of births and deaths.

Let it be remembered that for all this labor Dr. Webster has received no salary. No other president of the board has given so much of his time and his talent to the great work the State Board of Health has in hand. It is a sad reflection upon our institutions that new administrations generally dismiss all the incumbents of the old, regardless of their value to the state. We hope Governor Dunne will rise above the old evil custom and reappoint Dr. Webster upon the new State Board of Health.

COLONEL GORGAS.

President Taft is desirous of conferring upon Colonel Goethals a distinguished advancement in his rank in the army as a mark of approval for his services to the country in bringing the work of constructing the Panama Canal to completion in record-breaking time. The country approves the President's efforts, and the press dispatches from time to time couple the name of Colonel Gorgas as also meriting reward equally with Colonel Goethals.

Colonel Gorgas has had charge of the sanitary work of making

the Canal Zone habitable and has succeeded beyond, and far beyond, every expectation in the beginning. He has made the lives of those engaged in the stupendous work as safe as the lives of those engaged in similar labor in the state of New York. Colonel Gorgas has been engaged upon the work from the very first, and without the work of Doctor Gorgas the construction of the canal would not have been possible at this time, and perhaps not at any time. Several of the country's ablest engineers and builders have been engaged in the work before Colonel Goethals, and the work was well advanced when he took it in charge.

The MEDICAL RECORDER is heartily in favor of any reward that may be bestowed upon Colonel Goethals, but the importance of the work of Colonel Gorgas from the standpoint of utility as well as the length of time he has devoted to it, must not be overlooked. We hope that substantial and equal recognition will be given to Colonel Gorgas.

Book Reviews

TEXT-BOOK OF GENERAL AND SPECIAL PATHOLOGY. By Henry T. Brooks, M. D. Formerly Professor of Pathology at the New York Post-Graduate Medical School and Hospital; Consulting Pathologist to Beth-Israel, New York City, and New Rochelle Hospital; etc. Illustrated with 525 Half-tone and Other Text Engravings, also 15 Full-page Plates in Colors, Containing 40 figures. Philadelphia: F. A. Davis Company. Price \$6.00 net.

This is a model book. Even a cursory glance will convince the reader that here is the production of an able mind, an authority on the subject. It is one of the best arranged, clear, concise, and most instructive books on Pathology which we have read. Illustrated with 525 engravings, 110 in colors, heavier type of text of all important teachings which should be fixed in the reader's mind, and authoritative and up to date in everything, it is simply a model book for both practitioners and students. Originally based on Langerhaus' classic work, and other standard writers, the author has so thoroughly welded all scientific facts in such a readable and easily understood manner, that even the poorest students can not help but get an intelligent perception of this most important branch of medicine. The publishers also have done their work well, fifteen full-page plates of colors, excellent type, etc., all add to the value of this book. We commend it most highly.

GENITOURINARY DISEASES AND SYPHILIS. By Henry H. Morton, M. D., Clinical Professor of Genitourinary Diseases in the Long Island College Hospital; Genitourinary Surgeon to the Long Island and Kings County Hospitals and the Polhemus Memorial Clinic; etc., etc. Illustrated with 272 Half-tones and Photo-engravings and 18 Full-page Insert Plates, 11 of which are in Colors. Third Edition, Revised and Enlarged. Philadelphia: F. A. Davis Company. Price \$5.00 net.

This is a book of rare merit and we welcome the third edition, which is in many respects almost a new book. As the author states in his preface, the knowledge of syphilis alone has made greater progress in the last six years than in the four hundred years preceding, the cause of the disease having been discovered. The Wassermann reaction has made it possible to diagnose latent syphilis, and salvarsan has supplied us with a remedy equal and in some respects better than mercury. Again, the preliminary and the postoperative treatment of prostatectomy have been so much improved that the mortality has greatly lessened. The indigo-carmin and other tests for renal insufficiency, new instruments and new methods, such as the high-frequency current for bladder tumors, have all been instrumental in the rapid advancement of genito-urinary surgery. So the reader will find this book up to date in every respect, splendidly illustrated with 275 half-tone and photo engravings, and 18 full-page insert plates. We regard it as one of the very best books on the subject and it should indeed be found in the library of every man doing genitourinary work

HEALTH AND LONGEVITY THROUGH RATIONAL DIET. By Dr. Arnold Lorand, Carlsbad. Philadelphia: F. A. Davis Company. 1912. Price \$2.50.

This is a most readable book and while it is impossible to agree with the author in many of his conclusions, still we think that each reader will gain something of decided benefit to his knowledge of diet and dieting. The author has had great opportunities in observing the injurious effects of improper diet in hordes of visitors to Carlsbad, likewise of observing the beneficial effect of a suitable diet in both health and disease.

This book deals with the influence of food upon man, the fundamental laws of rational feeding, the injurious modes of feeding, the good and evil effects of various food substances, which naturally com-

poses the greater part of the book. Vegetarianism and its advantages and disadvantages, the practical advantages of rational feeding, hints for those obliged to take their meals in restaurants, increased activity and muscular power from suitable diet, and finally the relationship of food to old age and longevity. This will give our readers an idea of the scope of this work which is worthy of careful perusal and study. We cordially commend this book, as does Dr. Victor C. Vaughan in his foreword to the American edition.

SKIN GRAFTING FOR SURGEONS AND GENERAL PRACTITIONERS. By Leonard Freeman, M. S., M. A., M. D. Professor of Surgery in Medical Department of the University of Colorado, Surgeon to St. Joseph's Hospital, the National Jewish Hospital, and the City Hospital, Denver, Colorado. With 24 Illustrations. St. Louis: C. V. Mosby Company. 1912. Price \$1.50.

A very timely book, giving detailed and explicit instructions on skin grafting. The book describes the various methods of Reverdin, Thiersch, Wolf-Krause and Hirschberg, with special chapters on grafting from animals, grafting in lupus, X-ray burns and local anesthesia and skin grafting. Any one doing or contemplating doing this kind of work should give this book a careful study. A number of illustrations help to elucidate the various steps in skin grafting.

PATHFINDERS IN MEDICINE. By Victor Robinson. With a Letter from Ernst Haeckel and an Introduction by Abraham Jacobi. New York: Medical Review of Reviews. Price \$2.50 net.

This is a most interesting volume, written in brilliant style by Victor Robinson, with a letter from Ernest Haeckel and an introduction by Abraham Jacobi. It is only too true that most physicians have only a very vague idea of the forefathers in medicine, and we hope that many will avail themselves of this most interesting book, in itself a history of medicine. Commencing with Galen and Greek Medicine, follow Aretaeus, the forgotten physician; Paracelsus, iconoclast of medicine; Servetus, the medical martyr; Vesalius, the anatomist; Paré, the surgeon; Scheele, the apothecary; Cavendish, the chemist; Hunter, the natural philosopher; Jenner and vaccination; Laennec and auscultation; Simpson and chloroform; Lemmelweis, the obstetrician; Schleiden and Schwann; and finally Darwin, the saint of science. No better use can be made of one's spare time, than reading of these Giants of the Past.

OUR BABY. By Ralph Oakley Clock, Ph. B., M. S., M. D. Assistant Physician to the Out-Patient Department of The Babies' Hospital of the City of New York and St. Mary's Free Hospital for Children of New York City; Clinical Assistant Obstetrician to the New York Post Graduate Medical School and Hospital; etc., etc. Illustrated by the Author. New York and London: D. Appleton and Company. 1912.

This book is a gem, one that the physician can recommend to any mother. It does not endeavor to prescribe or teach a mother how to know more than the doctor, but simply gives good sound common sense advice in the management and daily care of babies. Concise and practical throughout. The author states explicitly, "If a baby is sick, the physician ought to be summoned at once, and in no case should the mother attempt to prescribe for her child—disregard of this rule has caused thousands of lives to be lost." Hence descriptions of infectious diseases, care of premature infants, etc., have been omitted. But the hygiene, training and general care of the babies from birth unto the end of the first period of lactation is gone into in such a sensible, sane manner that it is a pleasure to commend a work like this.

PROGRESSIVE MEDICINE. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Assisted by Leighton F. Appleman, M. D. Volume XIV. No. 4. December 1, 1912. Published by Lea & Febiger, Philadelphia. Six Dollars Per Annum.

This closing number of the present volume of Progressive Medicine is of more than usual interest. It contains the following subjects: "Diseases of the Digestive Tract and Allied Organs, The Liver, Pancreas, and Peritoneum," by Edward H. Goodman, M. D.; "Diseases of the Kidneys," by John Rose Bradford, M. D.; "Genito-Urinary Diseases," by Charles W. Bonney, M. D.; "Surgery of the Extremities, Shock, Anesthesia, Infections, Fractures and Dislocations, and Tumors," by Joseph C. Bloodgood; and a "Practical Therapeutic Referendum," by H. R. M. Landis, M. D.

News Items

For Rent.—Forenoon hours, very desirable office, Suite 306 Reliance building, 32 North State street.

For Rent.—Office hours in very desirable rooms in physicians' suite. Room 705, 15 East Washington street, Venetian building, Chicago.

Situation Wanted.—As office attendant in doctor's or dentist's offices by a young woman. For inquiries address, Dr. G. W. Kaufman, 845 Hinman avenue, Evanston, Ill.

For Rent.—Large room in private suit in first-class office building. Suitable for dentist or general practitioner. Private laboratory. Rest room and private exit. Dr. Martin M. Ritter, Kesner building, Wabash avenue and Madison street.

For Rent.—Office hours in a newly finished and furnished suite. Large or small room. One large consultation room with operating room (light or dark) and rest room adjoining for morning hours. Particularly desirable. Attendant furnished. Rent very moderate. Dr. John L. Porter, 7 West Madison street, suite 907.

Wanted.—Young medical student or doctor to correspond with us about a new way of money and friends making in the health and efficiency promoting line. Address George A. Schmidt (IT) Co., 236-238 North avenue, Chicago. Established 1875.

Dr. Frank H. Blackmarr desires to announce his return to office and hospital practice of Electro-Therapeutics, X-Ray Therapy, Radium Therapy, X-Ray Laboratory for rapid work. Office hours: 935 Marshall Field building, 8:30 a. m. to 9:30 a. m., telephone Private Exchange 1; 551 E. 47th street, 11 a. m. to 3 p. m., telephone Oakland 1719.

From the Bulletin of the Chicago Medical Society.—Dr. G. Frank Lydston kindly submitted his book, "Sex Hygiene for the Male," to the Ethical Relations Committee for examination, and the committee was unanimous in the opinion that the book is of great value in educating the laity in matters of sexual interest and that it is commendable to place the book within the reach of all. The committee is glad to give its official endorsement of the book.—(Signed) John A. Robison, Chairman.

Reportable Diseases.—The following diseases are now reportable to the Department of Health: Anterior poliomyelitis (infantile paralysis), cerebro-spinal fever, chickenpox, diphtheria, erysipelas, German measles, measles, mumps, membranous croup, ophthalmia neonatorum, pneumonia, puerperal septicemia, rabies, scarlet fever (scarletina), smallpox, streptococcus sore throat, typhoid fever, tuberculosis (all forms), typhus fever, trachoma, whooping cough, and other diseases designated as contagious or epidemic.

Personal.—Dr. Julius Grinker, of 32 North State street, has returned from Europe.

Dr. Maud Warner Dunn announces the removal of her office to

Suite 1448 Peoples Gas building. Practice limited to Pyorrhea and Prophylaxis.

Dr. Edward A. Fischkin desires to announce his return from Europe.

Dr. Frank W. Lynch, suite 920 Monroe building, 104 South Michigan avenue, announces a change in his office hours. Instead of being from 2 to 4 p. m. they will be from 11 a. m. to 1 p. m.

Two Years' Interneship, Good Samaritan Hospital, Guanajuato, Mexico.—This is a missionary hospital which was started by the Methodist Episcopal Church. Another Christian doctor is needed for the staff.

Guanajuato is a city of 60,000, the capital of the state of the same name. It is located 160 miles northwest of Mexico City. It stands at an altitude of 6,500 feet in a rich silver-mining region. The Mexican Central Railroad passes through the city.

One year's report of the hospital staff shows 339 visits to homes, 4,579 consultations, 24,523 treatments, 52 major and 279 minor surgical operations, medicines furnished by 17,587 patients. Fifteen different nationalities were included among those who were treated.

For this interneship a man is required who has had a thorough medical education and who is prepared to make his professional knowledge and skill directly subservient to the furtherance of the gospel.

Communications may be addressed to the director of the hospital, Dr. Levi B. Salmans, Good Samaritan Hospital, Guanajuato, Mexico.

The undersigned will be glad to communicate with any medical men who are interested in the need for physicians in foreign countries.—Mr. Wilbert B. Smith, 125 East 27th street, New York City.

Suggestions for Cook County Institutions.—On December 30 the Chicago Tuberculosis Institute submitted to the Public Service Committee of the Board of Cook County Commissioners, the following list of requirements to be considered in connection with the care of advanced cases of tuberculosis in the Cook county institutions: Tuberculosis Department of the Cook County Hospital, Tuberculosis Hospital at Dunning and the Tuberculosis Hospital at Oak Forest.

1. Increased medical service for the tuberculosis patients; at least one resident physician for each seventy-five to one hundred patients.

2. Increased and improved nursing service; at least one nurse for each thirty to forty ambulant cases and at least one nurse for each fifteen to twenty bed patients; of these nurses at least one for each fifty patients should be a graduate nurse. A sufficient number of attendants.

3. An adequate, well-prepared and well-served dietary of a standard set by recognized authorities in the treatment of tuberculosis.

4. The appointment of a staff of recognized tuberculosis experts to serve without pay who shall advise and co-operate with the Board of County Commissioners in the establishment and maintenance of these standards.

In conformity with the request of the Institute the Public Service Committee unanimously voted the recommendation to the Board of County Commissioners that the annual budget for 1913 should include an appropriation to cover the cost of improved service.

Chicago's Second Annual Household Show.—Few of our readers realize what a potent factor the Household Exhibitions are in raising the standard of health. Aside from the purely educational booths, such as that of the Visiting Housekeepers under the auspices of the United Charities of Chicago, the fine exhibits of the Chicago Tuberculosis Institute and of the Department of Health of this city, the visitor finds water filters, milk bottle openers, sanitarily designed refrigerators, chemically treated dusters, suction sweepers, modern bathroom appliances, parchment paper sheetings for the nursery and confinements—the latter, by the way, as effective and far less expensive than rubber sheeting—pure food products without number, electrical rooms filled with every conceivable apparatus from the nursery bottle warmer and heating pad for the baby to the large electric cooking ovens for the entire family. These things are shown and carefully explained to all who come. As might be expected, women visitors predominate. The majority of booths were occupied by Chicago firms, but there were a creditable number of our-of-town exhibitors, more of whom will be represented in the future as the popularity of these industrial exhibitions is unquestioned.

To the Editor:

The visit by a party of German physicians to the recent International Congress on Hygiene and Demography has proven that a well managed Travel Study party of physicians can make a trip through a foreign country in a far more pleasant and profitable manner, and at less expense, than can be done by traveling alone. Clinics can be arranged in advance, lectures prepared and visits made to the best hospitals and health resorts, with the assurance of a hearty welcome from the leading medical men of the localities visited. For those unable to speak the languages of the countries on the continent, this disadvantage is reduced to a minimum and the benefits of the trip correspondingly increased by traveling with such a party.

The coming International Medical Congress, London, Aug. 6-12, 1913, gives a splendid opportunity for organizing an American tour of this sort and plans are now ready for a Physicians' Travel Study Tour, leaving New York July 3rd for the most important capitals and health resorts on the European Continent: Paris, Munich, Carlsbad-Marienbad, Dresden, Berlin, Nauheim Wiesbaden, Cologne, Brussels, The Hague, Amsterdam, etc., ending with the week of the Congress in London.

The plan of this tour has been seen and endorsed by Drs. A. Jacobi, T. C. Janeway, Ch. G. Kerley, O. G. T. Kiliani, L. R. Williams, Wisner R. Townsend and others. Physicians interested in such a trip should write for further and more detailed information to Richard Kovacs, M. D., 236 East 69th street, New York City.

Keewatin Academy for Boys.—We would like to call attention to a unique and efficient school for boys, the Keewatin Academy of Mercer, Wis., located during the winter season, from January 10 to April 16, at Ponce Park, Florida, sixteen miles south of Ormond, on the east coast. These advantages, which are offered by no other boys' school in Chicago or vicinity, to our knowledge, give an ideal all-the-year-around

climate, under hygienic conditions, to the growing boy. As their catalogue states:

"We go South because the winter season is a dangerous period for the boy. Health and morals are put to a severe test without sufficient outdoor exercise or fresh air. A free, outdoor life means better lessons and better morals. The school in its southern home, as at Mercer, is free from the distractions of the town.

The essential difference between the work at Keewatin and that at nearly all other schools is that in the former the individual boy is the unit of instruction, while in the latter he is only a part of a class, and frequently of a large class. In the one case he is certain to receive the maximum of the teacher's efficiency; in the other, he may.

The classes are in every case small and in many instances the boy is in a class by himself; he is the unit of instruction, and not merely a part of a large class. Real work and definite results are possible with such a system, and weakness in one subject does not mean a delay of a year in all other subjects. A boy is given every opportunity to study and every incentive is offered to reward his efforts."

An Historical Medical Exhibition in London.—For the first time in 21 years the International Medical Congress will meet in London in the summer of 1913, and, in this connection, an exhibition of rare and curious objects relating to medicine, chemistry, pharmacy and the allied sciences is being organized by Mr. Henry S. Wellcome. The response to the appeal for loans has been most successful, with the result that probably one of the most interesting collections of historical medical objects ever gathered together will be on exhibition during the meeting of the congress.

Among other interesting sections is one including the medical deities of savage, barbaric and other primitive peoples. Through the kindness of friends, specimens of these have been forwarded from all parts of the globe, but there are still many gaps to be filled, and those who possess such objects, and would be willing to loan them, should communicate with the secretary of the exhibition, whose address is given below.

Amulets, talismans and charms connected with the art of healing will also form another prominent feature and any loans of this description would be welcomed.

In the section of surgery, an endeavor will be made to trace the evolution and development of the chief instruments in use at the present day, and it is desired to accumulate specimens of instruments used in every part of the world by both savage and civilized peoples.

In pharmacy and in botany special exhibits are projected, which will include models of ancient pharmacies, laboratories and curious relics of the practice of alchemy in early times. Specimens of ancient and unusual materia medica from all parts of the world will also be exhibited.

A complete, illustrated syllabus will be forwarded to anyone interested on application to the secretary, 54a Wigmore street, London, W., England.

GRAND RAPIDS
PUBLIC LIBRARY
THE
**CHICAGO MEDICAL
RECORDER**

FEBRUARY, 1913.

Original Articles.

CHICAGO DRAINAGE.

By ARTHUR R. REYNOLDS, M. D.

Faulty management by the trustees of the Sanitary District during the past twelve or fifteen years has brought the drainage problem of Chicago and vicinity to a crisis. The scheme of drainage for Chicago, as laid out by its founders and enacted into law by the state of Illinois in 1889, was intended to be ample for the disposition of Chicago sewage by dilution for all time, as well as to provide a ship canal from Lake Michigan to the Mississippi river. It was intended that this sanitary waterway should be developed progressively in connection with a deep waterway from the lakes to the Gulf of Mexico.

The state law creating the Sanitary District provided that the rock cut of the canal should have capacity for a flow of not less than ten thousand cubic feet per second. The law directed the removal of the two state dams in the Illinois river and the removal of obstructions and the improvement of the channel in the Illinois and Desplaines rivers for the purpose of avoiding overflow and damage. In a separate act the same Legislature, by joint resolution of the Senate and House, requested the United States to aid in the construction of a channel not less than twenty-two feet deep across the Chicago Divide between Lake Michigan and Lake Joliet and to project a channel of a depth of not less than fourteen feet between Joliet and La Salle on the Illinois river, all to be designed in such a manner as to permit future development to a greater capacity. The Government was requested to stop work upon the locks and dams then building at La Grange and Kampsville in the lower Illinois river and to apply its funds in such manner as to develop progressively all the depth

practicable by the aid of a large water supply from Lake Michigan. The joint resolution further said: "It is the policy of the state to procure the construction of a waterway of the greatest practicable depth and usefulness for navigation from Lake Michigan via the Desplaines and Illinois rivers to the Mississippi river."

These Acts indicate that the legislature desired a deep waterway. They also indicate that the legislature knew that a deep waterway in the Illinois river was necessary for the minimum flow they demanded through the Drainage Canal.

Engineers who have examined the Illinois river admit that a channel of fourteen feet depth is feasible from Chicago to the Mississippi river. There are competent engineers who believe that a depth of twenty-two feet is feasible for this distance. Had this plan been pushed from the beginning, there might now be a channel of fourteen feet deep in the lower Illinois river.

The earlier boards of trustees that constructed the main channel were in accord with the law of the state, and with an eye to the future, they constructed the rock cut of the canal with a capacity of fourteen thousand cubic feet per second.

Political parties, business men, the press and others in Chicago, capable of helping the work along as originally planned, have apparently considered the waterway part of the drainage scheme a joke once the canal was opened for the flow of sewage. They have forgotten that when the Drainage Act was accepted and the canal constructed, they were obligated to work for a deep waterway and they probably never knew that a deep waterway was needed through the Illinois river to carry the flow necessary for sewage dilution, even for the present population, in order to prevent the overflow of the bottom lands adjacent to that stream.

Recent boards of trustees, impressed by the spirit of the Chicago public, have departed from the plan of the earlier boards. They have evidently given up the deep waterway idea, as will be seen.

There are four dams in the Illinois river. The two Government dams at La Grange and Kampsville and two dams owned and constructed by the state, one at Henry and the other at Copperas Creek. The two state dams jointly back the water up nearly one hundred miles. These four dams were for the purpose of aiding navigation of the stream during low water. Notwithstanding the direction of the law of 1889 that the two state dams should be removed before the water was turned into the canal, they are both still in existence. The Sanitary District was enjoined from removing them by the State

Board of Canal Commissioners on November 13, 1899 and, in the thirteen years that have elapsed, the case has not yet been finally adjudicated and the trustees of the Sanitary District seem to have erred in not pressing that suit to a conclusion, or taking other steps through the legislature, or by arousing the people to secure their removal. There are in the vicinity of 400,000 acres in the valley of the Illinois river subject to overflow. Competent engineers admit that the removal of the four state dams and the deepening of the channel of the river to fourteen feet, with some improvements to the banks, would prevent this overflow. The trustees of the Sanitary District have already paid out \$75,000 for overflow damage, claims are now pending for nearly eight million dollars of damage from overflow, and there is a prospect of further unnumbered claims; but this is not all—another unknown number of claims may be set up year after year, as often as the damage may be repeated, and there does not seem to be any way of getting away from this enormous tax upon the district except by improvement of the river, as understood and intended by the legislature in 1889.

CHICAGO RIVER.

Another error of the trustees will be seen in their delay in improving the Chicago river. In 1901 the trustees established as their policy that the Chicago river from its mouth through the heart of the city should be widened to 200 feet on the surface, made a depth of twenty-six feet, 100 feet wide at the bottom. Part of this work has been completed, but in the vicinity of Jackson boulevard bridge and the bridge of the Metropolitan Elevated Railroad the river is not yet widened. No more water can now go through the Chicago river to dilute the sewage than in 1900 when the canal was opened. This work should not have required thirteen years to complete. It should have been done in about four years. There is still no immediate probability of its completion. Even where the river is widened to 200 feet, it is again narrowed to one hundred and forty feet by bridge abutments. In its narrowest place it is only ninety feet wide—hence no more water can flow through the Chicago river now than when the canal was opened in 1900, for the river is only as wide as its narrowest part when the flow of water is concerned.

FEDERAL PERMIT.

Part of the Chicago river from Robey street to its mouth is under the control of the Federal Government for the purpose of navigation. In all the permits granted by the Government for the flow of water

through this part of the river, the only question the Government has considered was the influence that the rapidity of the current would have upon the navigation of the stream. It is easy to understand that a given flow through a narrow stretch of ninety feet must be more rapid than it would be in a stretch two hundred feet wide. The Government only allows a flow of 4,166 feet per second through the river because a more rapid current would be dangerous to its navigation. In 1910 the trustees applied to the Government to permit a flow of 10,000 cubic feet per second through the Chicago river and the Calumet river. The canal to connect the Calumet district with the Drainage Canal is not yet dug. Why they should apply for 10,000 cubic feet of water per second before they have channels constructed through which it might safely flow seems inconsistent and hard to understand.

REFUSAL OF SECRETARY OF WAR.

The recent refusal of the Secretary of War to allow a flow of 10,000 cubic feet per second does not change fundamental conditions in the slightest degree. The secretary is strictly within his province when guarding against a current in the Chicago river that would be dangerous to its navigation, but his discussion of the lake levels in this connection was unnecessary. No serious objection should be taken to it, however, for the trustees of the District laid themselves open to it.

AMOUNT OF FLOW.

As a matter of fact, the Sanitary District is drawing through the Chicago river a much larger quantity of water than the Government permits. It is shown in "A Brief of the Facts and Issues" by Mr. Lyman E. Cooley, advance copies of which have recently been published by the Sanitary District, that the flow for 1911 was 6,250 cubic feet per second. Mr. Isham Randolph, until recently consulting engineer of the Sanitary District, in his argument supporting the prayer of the Sanitary District for a permit to take 10,000 cubic feet of water per second from the lake, and published in Bulletin No. 6 of the State of Illinois Rivers and Lakes Commission, dated April 3, 1912, stated that two years ago he found, by meter measurement taken in Romeo, the flow to be slightly in excess of 7,000 cubic feet per second. This evidence indicates that the Sanitary District is not keeping faith with the Federal Government. That these facts are known to the Government is indicated by the fact that they have been taking measurements themselves during the past year. Formerly they depended upon the reports of the Sanitary District trustees as

to the amount of flow. It further indicates that, in this particular at least, the Government engineers distrust the reports of the Sanitary District.

FEDERAL INJUNCTION.

In his annual message to the Sanitary District trustees in 1910, the president of the board of trustees states that "A friendly suit was started in March, 1908, by the Government getting a temporary injunction to restrain the Sanitary District from taking four thousand cubic feet of water per second from Lake Michigan to the Calumet Sag." In the annual message to the trustees for 1911, the present president of the board of trustees states that the suit was begun at the request of the board of trustees. This suit is not yet disposed of, although the Sanitary District is digging the canal. Why the trustees should ask to be enjoined from doing this work it is difficult to understand.

POWER PLANT.

Nearly five million dollars have been expended in the construction of a power plant at Lockport for the generation of electric current. Why this expenditure should have been made, which requires a flow of about 6,000 cubic feet per second to operate, before they had completed the channels and established their right to a flow of 6,000 cubic feet per second, it is also hard to understand. It permits the inference to be drawn that the excess of flow over the Government allowance is for the purpose of turning the wheels and producing the current and not to meet the sanitary needs.

NORTH SHORE CHANNEL.

Something like three millions of dollars have been expended in digging a canal from the north branch of the Chicago river at Bowmanville through the Skokie north to connect with the lake at Wilmette. The purpose of this channel was to drain the annexed Sanitary District on the north that reaches on the east as far north as the county line at Highland Park. Why money should be expended in digging this channel before the Chicago river is widened to accommodate the increased flow is also hard to understand. Drifting further and further away from the original plan, the engineers of the Sanitary District in 1910, believing that they were near the limit of a dilution plan, prepared an elaborate system for the treatment of Chicago sewage at various stations, the purpose being to take out a portion of the putrescible content of the sewage before it was discharged into the sewers. This scheme, if carried out, would in the next twenty years

cost close to \$20,000,000 for installation and other millions each year would be required for its maintenance. This expense would be continuous, and as the population still further increased, new plants for sewage treatment would have to be installed.

INTERNATIONAL TREATY.

On May 13th, 1910, the President of the United States proclaimed a treaty that has been made between the United States and Great Britain concerning the boundary waters between the United States and Canada.

Article III of the treaty, in speaking of its provisions, uses the following language:

"Nor are such provisions intended to interfere with the ordinary use of such waters for domestic and sanitary purposes."

The closing paragraph of Article V reads as follows:

"The prohibitions of this article shall not apply to the diversion of water for sanitary or domestic purposes, or for the service of Canada for the purposes of navigation."

In Article VIII is the following:

"The following order of precedence shall be observed among the various uses enumerated hereinafter for these waters, and no use shall be permitted which tends materially to conflict with or restrain any other use which is given preference over it in this order of precedence:

"(1) Uses for domestic and sanitary purposes.

"(2) Uses for navigation, including the service of canals for the purpose of navigation.

"(3) Uses for power and for irrigation purposes.

"The foregoing provisions shall not apply to or disturb any existing uses of boundary waters in either side of the boundary."

It will be seen that the treaty recognizes—first, the use of international waters for sanitation, and last, for power.

RIGHT TO APPROPRIATE WATERS OF LAKE MICHIGAN.

Mr. Lyman E. Cooley, in a report by the Internal Improvement Commission of Illinois, argued that we had the right to appropriate the waters of Lake Michigan to the full capacity of the rock cut of the Sanitary District Canal, which is about fourteen thousand cubic feet per second, and at least one thousand feet by the Illinois and Michigan Canal, or as much as its capacity will carry, quotes as follows from the decision of the Supreme Court of the United States in the case of *Missouri vs. the State of Illinois and the Sanitary District of Chicago*:

"Some stress was laid on the proposition that Chicago is not the natural watershed of the Mississippi, because of a rise of a few feet between the Desplaines and the Chicago rivers. We perceive no reason for a distinction on this ground. The natural features relied upon are of the smallest. And if under any circumstances they could effect the case, it is enough to say

that Illinois brought Chicago into the Mississippi watershed, in pursuance not only of its own statutes but also of the Acts of Congress of March 30, 1822, c. 14, 3 St. 659, and March 2, 1827, c. 51, 4 St. 234, the validity of which is not disputed. *Wisconsin vs. Duluth*, 96 U. S. 379. Of course these Acts do not grant the right to discharge sewage, but the case stands no differently in point of law from a suit because of the discharge from Peoria into the Illinois, or from any other or all the other cities on the banks of that stream."

The decision seems to justify Mr. Cooley's claim.

LAKE LEVELS.

The level of the Great Lakes is governed largely by the rain-fall in the area draining into them and the evaporation. These two factors are of greater importance in governing the levels than the out-flow. To what extent Lake Michigan may be fed by springs at its bottom is an unknown quantity, but a perusal of a chart prepared by the Federal Government giving the levels of all the Great Lakes since 1860 shows greater fluctuation than is generally known. It also shows a most striking thing—that the level of Lake Michigan for the thirteen years since the canal has been opened will average higher than the thirteen years previous to the opening of the canal. With this fact in evidence, it will be seen there are difficulties connected with a positive determination as to what the normal level of the lake really is.

DILUTION IN CITY.

The theory of the dilution plan implies that the sewage be diluted as near the point of production as possible, else a nuisance may be created in the Chicago river. The canal under construction to connect with the Calumet would enter the main drainage channel at the Sag, a point twenty-three miles below the mouth of the Chicago river. When the North Shore District sewage flows through the Chicago river it will need a much wider channel than it has at present for proper dilution through the city and it is probable that another channel may be necessary at some point below Sixteenth street to connect with the lake and bring in enough water for dilution.

LIFE OF ORIGINAL PLAN.

When sufficient water is introduced at Chicago to dilute the sewage to the full capacity of the drainage channel, it would care for a population of 4,500,000 people in that district between Eighty-seventh street on the south and the county line on the north. It is not likely that such population will be reached in the next half century. If the plan outlined for the treatment of sewage, or some other plan is applied to industrial sewage of such large concerns as the

Stock Yards and others, it would extend the life of the sewage disposal plan for another fifteen or twenty years. By that time a deep waterway from the lakes to the Gulf will doubtless be in successful operation, and as the time goes on, the necessities of its navigation will demand a still deeper and wider stream that cannot be filled in slack water except water be drawn from Lake Michigan. This can be relied on to take care of the sewage dilution for the century to follow. In any event the necessities of sixty to seventy years in advance is all that need be provided for at present.

CALUMET DISTRICT.

By using the Illinois and Michigan Canal for a flow of one thousand cubic feet per second, as Mr. Cooley suggests we have the right to do, it would care for a population of 300,000 people. At the present rate of increase it will be many years before the population of that portion of the city south of Eighty-seventh street will reach that number. The canal from the Calumet district to connect with the old canal at the Sag affords a solution of that problem. If the adjacent territory in Indiana subsequently desired relief and could make satisfactory arrangements with the state of Illinois and could get the water for dilution and pay their share of the expense, the old canal might be enlarged and ample drainage be had without trespass upon the main drainage canal of Chicago. The Calumet district and the North Shore could have become part of the Sanitary District when it was first organized, but they did not come in until after the canal was dug and the water was flowing. If the Sanitary District can not get more water for dilution, then it would be manifestly unfair to those tax payers who have built the canal, if the North Shore and the Calumet District should be permitted to discharge any of their sewage into the canal.

RIVER IMPROVEMENTS IN MISSISSIPPI VALLEY.

A vigorous movement that is gradually gaining strength has been under way for some years for the improvement of the rivers throughout the entire Mississippi Valley. It embraces the prevention of floods in the lower Mississippi, the construction of deep waterways, the building of dams at the head waters of all streams to retain the floods for the purpose of creating power, for irrigation and for filling the streams and furnishing water in the dry season to aid navigation. Chicago is a vital part of that whole scheme. Chicago has constructed a deep waterway from Lake Michigan extending thirty-six of the

most difficult and expensive miles toward the Gulf of Mexico. Many may think this is Chicago's share. It is her share and more than her share, from a strict waterway standpoint. But Chicago needs a deep waterway through the Illinois river to carry the necessary waters of dilution for her sewage without damage to farm lands, even though it never floated a dollar's worth of commerce. The state has voted twenty million dollars to construct a deep waterway from Lockport to Utica. Congress has dealt generously with the deep waterway project in the lower Illinois river when the luke warm attitude of Chicago business interests is considered. There need be no fear that such a waterway would not be utilized and be a source of great gain to the entire Mississippi Valley, including Chicago. If Chicago will join in such a movement the aid of the Federal Government can undoubtedly be had, for the Mississippi Valley is very much more than one-half of the nation, and a waterway once constructed will cost but little to maintain.

If we are now to abandon the principle of dilution and take up the treatment of the sewage by mechanical means, the cost, combined with the damage to flooded lands, will be a staggering load for the tax payers. In addition, there is no guarantee that the Chicago river will not again become the foul cesspool that it used to be before the drainage flow began.

THE JURY LAW FOR COMMITMENT OF THE INSANE IN
ILLINOIS (1867-1893), AND MRS. E. P. W. PACKARD, ITS
AUTHOR, ALSO LATER DEVELOPMENTS IN LUNACY
LEGISLATION IN ILLINOIS.*

By RICHARD DEWEY, WAUWATOSA, WIS.

No one can contemplate without wonder the historical fact that in the state of Illinois for a period of over 26 years, the only process whereby a citizen of the state could be committed to the institutions for the insane was by appearing in court and being passed upon by a jury. This rule did not apply to insane criminals; but, with this exception, all sufferers from insanity, whatever the nature of their psychosis; whether they were in a toxic delirium; in the grandiose stage of paresis, or in the stupor of melancholia, were brought to the court room and exhibited to judge and jury and, incidentally, to as many spectators as happened to be in the hall of justice. Women suffering from puerperal insanity or in the throes of hysteria, victims of senile dementia, brain tumor, drug or alcoholic addiction—all shared the same fate. They must be publicly declared “insane” by the verdict of a jury, before they could be received for care or treatment in the state hospital. It is difficult to understand how this “first aid” to injured minds came to be devised until we consider two facts: First, the attitude of the public mind, prevailing half a century ago, towards insanity and towards the institutions for the insane—an attitude of mixed suspicion and superstition, growing largely from ignorance; and, second, a vicious and unconstitutional, yet technically legal form of commitment provided for by the statute of 1851. This vicious commitment clause in the Illinois statute ran as follows:

Section 10. Married women and invalids who, in the judgment of the medical superintendent, are evidently insane or distracted may be received and detained in the hospital on the request of the husband of the woman (or parent or guardian of the infant) *without the evidences of insanity or distraction required in other cases.*

By this enactment, the sole control over personal liberty of married women and minors and the quasi-judicial determination of the question of their insanity were illegally placed in the power of persons who were not the proper officers of the law, for such purpose, and it is almost needless to add that any married woman who could show that she had been sent to and confined in the asylum for insane against her will under this process whether really insane or not,

*Read at the Sixty-eighth Annual Meeting of the American Medico-Psychological Association, Atlantic City, May 29, 1912.

would have a valid claim to further proceedings to determine the questions of sanity and liberty, and could incidentally, in carrying out such proceedings, create much unpleasantness for the trespassers upon her personal rights; for notwithstanding "Clause No. 10" forcible conveyance to the insane hospital was "kidnapping" and detention there was "false imprisonment," if done without the patient's consent, or without express warrant of a competent court of law. Matters were thus left in unpleasant shape for any husband who combined with a hospital superintendent to exercise the power seemingly conferred by "Clause No. 10," and place a wife in the hospital for insane. Such proved to be the case in the instance with which we are dealing. The patient in question was a woman of ready wit, indomitable energy, persuasive eloquence and fine personal appearance, although she had been on both sides of the "border line" between sanity and insanity, and in such a case it may be said that a "little madness" like a "little learning" was a dangerous thing for those at whom its shafts were aimed—more serious indeed than either stark madness or entire sanity.

The public reaction against this unwarranted exercise of the power of commitment, when a case of the kind finally attracted general attention, went to such extreme length that a new law was eventually placed on the statute book which forbade under penalty of fine and imprisonment that any citizen under any circumstances should enter the hospital of the state without a jury first "sitting" publicly upon his case. This was the celebrated "Jury Commitment Law" of Illinois, and the prime mover in originating it and securing its passage was Mrs. E. P. W. Packard, who had been committed and detained three years in the state hospital under the vicious commitment "Clause No. 10"; and this fact opened to her a brilliant career as a martyr to tyrannical legislation and conferred upon her a great distinction as reformer and "deliverer of the oppressed" throughout the length and breadth of the land—a career in which she manifested a high order of ability to muster and organize her forces; also to sway legislative bodies by her eloquence, not only with Illinois as her battle-ground but in Massachusetts, in Maine and in Iowa. She also made bold, though non-successful campaigns in Connecticut, in New York and in Washington, D. C. But it is specially important to understand in this connection that the thing which gave power to Mrs. Packard was not so much her own merit and skill, though she had her share of these, nor the weakness and folly of legislative bodies, though these too are well known, but the

fact that there was a strong reaction against a wrong which had been done under a form of law, and the feeling that such error or weakness in the law must be corrected at all hazards, even the hazard of over-correction and this strong feeling remained for twenty-six years in the minds of the legislators, as an insurmountable barrier to better enactments, though proposed again and again.

I desire to present a brief statement of the facts in this case and of the legislative career of Mrs. Packard, and to advert to the present status of the law in Illinois.

Dr. W. R. Dunton several years ago presented in the *Johns Hopkins Bulletin*¹ a thorough and admirable study of Mrs. Packard to which I am much indebted. I have also made use of seven volumes belonging to me of Mrs. Packard's curious writings and of the official documents in the case.

The starting point of our narration is the home of the Rev. Theophilus Packard, a Presbyterian clergyman in charge of a Congregational church in the little village of Manteno, Illinois. His wife, Elizabeth, and he had lived together twenty years and six children had been born to them. He was fourteen years her senior and she was forty-three, approaching her climacteric. Little is known of their previous life except that they came from Massachusetts where her father was also a clergyman. Dr. McFarland in discussion before this association, found in volume twenty of the *American Journal of Insanity* (p. 88 et. seq.), states her mother had been insane and she herself at twenty had been in the Worcester asylum; also that she was well educated and of bright mind and had been a teacher in a young ladies' school. The records of the Worcester hospital show that one Elizabeth P. Ware was committed by the judge of probate February 6, 1836, and discharged recovered March 18 of the same year. The transcript of the history, kindly furnished me by Dr. E. V. Scribner, states "she was an interesting and intelligent girl" and certainly in later life as Mrs. Packard she was a woman of bright mind and a ready talker and writer. It furthermore appears that the Bible-class of the Manteno church was in a languishing condition in the year 1860 and in order to "get up an interest" the deacon in charge of the class invited the pastor's wife to appear and present her views

¹"Mrs. Packard and Her Influence on the Laws for the Commitment of the Insane," by W. R. Dunton, Jr., M. D., Assistant Physician Sheppard and Enoch Pratt Hospital, Towson, Maryland. *Johns Hopkins Bulletin*, Vol. XVIII, No. 199, October, 1907. Also "Further Notes on Mrs. Packard," *Idem*. Vol. XIX, No. 208.

on Bible topics, which views were known to be original and interesting. The good wife referred this request to her husband and his reply as quoted by her was, "I think you had better go, wife, and see if you can help him. I will take care of the babe during the intermission so you can be free to go." The husband appears thus to have taken an advanced position, worthy almost of the present day, which, however, he failed later consistently to maintain; and the wife, who would have been worthy to serve as a leader in the ranks of the militant and insurgent women of our own time, appeared before the Bible class and delivered most interesting opinions on total depravity, right of private judgment, God's immutability, freedom of conscience and the like, which roused keenest interest and brought the membership of the Bible class in a short time from seven to forty-six. But the deacon, in throwing open the class to free discussion, soon had a series of such lively and contentious debates and so much heterodox opinion to deal with that all agreement and authority vanished and it appeared the agitation, in which Mrs. Packard was the leader, must cease or the church become seriously disrupted. The principal point of difference was Mrs. Packard's denial of Calvinistic doctrine. The deacon now proposed to the pastor that his wife should give up these Bible class discussions, and the pastor made the same proposal to his wife. She, however, insisted that her husband should either defend her in her honest opinions or else announce that he had forbidden her to continue her Bible class activity and as he would take neither of these courses, she allowed her displeasure to be generally known, and, later, on a Sunday when service was in progress and her husband was in the pulpit, entered the church, interrupting the proceedings, demanding to know if the officers of the church were present, and insisting that a letter of dismissal should be immediately forthcoming. Her conduct was eccentric and, whether it was valid evidence of insanity or not, led her husband to the belief that she was insane and should be committed to the asylum; and of course a certain amount of bigotry and intolerance complicated the situation on both sides. Soon after this Mrs. Packard was placed on board a train and taken by her husband to the state hospital at Jacksonville. At the railroad station she refused to go voluntarily, and being advised that force would be used, suggested that a couple of gentlemen among the crowd collected about, should clasp their hands so as to form a "saddle seat" for her, and thus she rode from the platform to the car. The sheriff was present and directed the proceedings, but it

afterwards transpired he had no legal warrant and in fact, had been refused a writ in the probate court, but felt satisfied in acting under the "Clause No. 10" above referred to.

Arriving at the hospital for the insane, the medical superintendent received and detained Mrs. Packard (as expressly authorized) under the vicious sanction of "Clause No. 10." He was exercising a supposed legal right and the error was in the law, not in him.

Mrs. Packard found herself, at first, pleasantly surrounded and interested in her new environment. She appears to have been quite privileged; to have assisted in entertaining other patients, etc. But, after about four months, was placed in a disturbed ward.

In her book published after her release and at the legislative investigation, she made various accusations which time will not permit us to consider here further than to say that evidence conflicts and *animus* is so apparent as to render candid judgment difficult. It seems probable, however, that Mrs. Packard though probably sincere, was carried away by her zeal for reform and instead of weighing evidence impartially made herself believe what accorded most with her purpose of bringing about "reforms."

At the end of the third year of her confinement at the state hospital, Mrs. Packard was ordered removed by the trustees of the hospital and taken to her home by her husband where, being again confined against her will, she smuggled from the window to a passer-by a note addressed to a neighbor, who, consulting the county judge, was advised that if she was restrained of her liberty, a writ of habeas corpus would lie and such a writ was accordingly sued out.

When the hearing took place before the county court in Kankakee, very general attention was aroused. Public sentiment strongly favored Mrs. Packard, and it naturally followed that the hearing before a jury resulted in a verdict of sanity.

The time and space forbid discussion here of the question of her sanity; it would easily make an article of itself; but I will have a few words to say on this point before closing. She manifested a skill and shrewdness in apprehending legal points and in power of winning people to her views that were quite remarkable, even allowing for the advantage her sensational asylum career secured for her. And whether her cause was bad or good she exhibited heroism in its prosecution. She now started upon a general career of agitation in various states of the Union for reform in the commitment laws; in the laws regulating the administration of the asylums, and also those affecting the legal status of women in general. She acquired the

"sinews of war" for her campaigns by canvassing for the sale of the book she intended to publish. She gave to everyone she met, who would accept them, written promises to furnish her book when published in exchange for small sums of money. Making a beginning in this way she met with much success and later was enabled to publish and sell enough books to support herself; indeed, eventually clearing many thousands of dollars. She in the end acquired property, bought a good home in Chicago and compelled her husband in Massachusetts to surrender their minor children to her custody, taking their care and education upon herself.

After her release from the insane hospital, in 1865, she first went to Massachusetts and in March of that year, being given a hearing before a committee of the legislature, presented two bills. No. 1 was worded as follows: "No person shall be regarded or treated as an insane person or a monomaniac simply for the *expression of opinions*, no matter how absurd these opinions may appear." This law she alleges was needed for the personal safety of reformers. No. 2 was worded as follows: "No person shall be imprisoned and treated as an insane person except for *irregularities of conduct* such as indicate that the individual is so lost to reason as to render him an unaccountable moral agent." These bills or sections of bills were enacted by the legislature and are found on p. 268, Sec. 2, of the General Laws of Massachusetts, according to Mrs. Packard's statement in her book.²

In the winter of 1866 Mrs. Packard returned to Illinois and inaugurated her struggle to secure a jury trial for all persons committed to the state hospital for insane. What she called her "personal liberty" bill was introduced in the legislature. This bill required in all cases a verdict of a jury and an order of court in the case of commitment of any person to any hospital or asylum for insane. The bill also provided penalties of fine and imprisonment for violation, and as Mrs. Packard alleged that scores of sane persons were imprisoned at Jacksonville, ordered and required that all persons *now* detained in the state hospital for the insane should be entitled within sixty days to be taken to court and given a public hearing before a jury. A law had previously been passed in 1865, doubtless to remedy the mischievous provisions of "Clause No. 10," requiring a jury trial. But a general agitation of the question of commitment was now brought about and Mrs. Packard's allegations, that large numbers

² Modern Persecution, Vol. II, p. 100.

of sane people were held in the state hospital, met with such credence that the additional provisions for a hearing in the case of all persons now in custody and for fine and imprisonment were attached to the bill. In this connection it may be noted that the formal judicial inquest as to insanity of all persons in the hospital at Jacksonville which later took place, did not result in the expected discovery of any sane persons held as insane.³

The so-called "personal liberty" bill was finally approved by Governor Oglesby on March 5, 1867. In this same year a committee was appointed to investigate the institution at Jacksonville, and during a period of several months conducted an investigation of an unusual sort which, however, was manifestly an *ex parte* procedure—the committee refusing to allow the superintendent or trustees to be present at the hearings which were held in various parts of the state but not at the hospital itself. The committee also advertised in the public press for complaints against the management, and a vast number were collected, which Mrs. Packard "edited" with great ingenuity. The committee adopted its course with such evident bias against the management and against Dr. McFarland personally, that there was much protest against their methods, and the recommendation they made for Dr. McFarland to be discharged was opposed by many disinterested persons. The old board of trustees were now reappointed by the governor and after reappointing Dr. McFarland, themselves resigned. There was then no power to displace the superintendent until another session of the legislature could convene.

After Mrs. Packard had been instrumental in carrying legislation in Massachusetts and Illinois she endeavored to secure the passage in Connecticut of a law equalizing the property rights of husband and wife. She was incited to this by the fact that her husband had kept property of hers in his possession and could legally appropriate her earnings even now. She was, however, unsuccessful in her efforts in Connecticut, although given a joint public hearing by House and Senate, yet in the midst of what seemed a most successful campaign, support was suddenly withdrawn. She alleges that the publication of her alleged "love letter" to Dr. McFarland in the press of New Haven together with other, as she claims, untrue and scandalous matter, turned the tide against her. The particulars of this are not accessible.

Mrs. Packard then turned her attention, for the time being, to

³Trustees Biennial Report, Dec. 1868, pp. 8 and 9.

Iowa, and in 1872, after numerous hearings before the committee, and a large amount of lobbying, her bill was passed, conferring special privilege of correspondence upon inmates of asylums and requiring that all letters written by patients to certain designated outside correspondents or to members of the boards of charity should be forwarded unopened, also establishing a visiting committee with a woman member upon the board. The bill also provided that at least once each week patients should have writing materials and other facilities for correspondence, which should be forwarded unopened by the superintendent. Letters addressed to the patients also were forbidden under heavy penalties to be opened by any person but those to whom they were addressed. This law was passed with an emergency clause as being of immediate importance.

Mrs. Packard later, in 1874, visited the state of Maine and was instrumental in having a law passed there which provided for a visiting committee with a woman upon the board. When shown through the state asylum at Augusta, after conversing with the patients upon the wards, she stated to the chairman of the visiting committee that there were at least fifty patients who ought not to be in the institution though nothing is given to substantiate this charge. She presents a commendatory letter, however, from Governor Dingley with reference to the working of the law. In 1875 she visited Washington and was given a hearing before congressional committees of House and Senate with reference to a bill for the national protection of the "postal rights" of the inmates of insane hospitals. She was at first "turned down" by Postmaster General Jewell, and was disappointed in gaining an interview with President Grant, but she was given access to Mrs. Grant, who bought two of her books and made an appointment for her with the president, and General Grant later received her and expressed his approval of her bill which was eventually reported favorably by committees of both House and Senate, but never taken up for passage. The bill provided among other things that a government letter box should be placed upon the premises of all asylums for the insane, public and private, whenever requested by the authorities of the several states and should be accessible to all the inmates personally.

I will now give a few words to Mrs. Packard's mental condition. She appears to have been a patient belonging to the paranoiac class, possessing a remarkable fluency and a pleasant personal address, yet the victim of delusions of religious form. The mental disorder from which she suffered related almost solely to ideas of a mystical char-

acter. Her views upon Calvinism and total depravity, which were the "apple of discord" in the case, had nothing necessarily pathological about them. Taking her own attitude and writings one meets with extraordinarily inconsistent assertions and ideas. In the dedication of her book called "Modern Persecution, or Insane Asylums Unveiled" she calls herself "the mother of her country, and her sons and daughters are—*The American Republic.*"

The testimony of a physician who examined her when first sent to the hospital was that she considered that calling her insane . . . "was blasphemy against the Holy Ghost." She quoted this testimony herself in her book and does not take occasion to deny it. Dr. McFarland found she entertained the belief that she was the third person of the Trinity; the first and third persons being divine man and woman; their offspring was the Son of God, and she the mother of this Son. Her counsel took pains to explain that this theory about sex of the persons of the Trinity had been advanced by theologians in olden times and might be held by sane persons; but apparently he overlooked the irrationality of her application of this idea to herself personally. She saw, as she states, nothing insane in the claim of another patient who called himself to be Jesus Christ.⁴ Mrs. Packard also maintained "with the utmost gravity and earnestness," so Rev. Dr. Sturtevant, president of the Illinois College, states, that her husband was literally "the great red dragon of revelation."⁵

Whatever Mrs. Packard's mental state, and of this it is difficult to judge absolutely, one is compelled to regard her as either insane or lax in morality, in writing her celebrated "love letter" to Dr. McFarland. This letter which she wrote to the doctor after she had been two and one-half years in the hospital reads as follows: . . .

My heart has never been wedded. It is whole and sound and unappreciated except as you, the first true man I have ever met, accept it. I know this is a bold step for me to take, but you know I am dauntless in the right. I have a right to love a true man, and if he is the true man I take him to be, it won't offend him or expose my honor or virtue to let him know it too. I wish no one except yourself * * * to know of this act. My own heart does not condemn me for this act, neither does God condemn me for loving His image.

Yours in the best of bonds,

Elizabeth.

When this letter was introduced in evidence at the legislative investigation, Mrs. Packard freely admitted writing it. She also

⁴Modern Persecution, Vol. I, p. 347.

⁵Special Report of the Trustees of the Illinois State Hospital for the Insane, 1868, p. 39.

admitted that she at the time knew Dr. McFarland to be a married man and that she herself had a living husband. She introduced a written explanation of the letter the purport of which was as follows:

First, I love God. * * * Second, I love myself. * * * Third, man is made in God's image. * * * Fourth, my spirit in its present embodied form needs and calls for a protector, etc.

She herself wrote this letter also (as her book shows), while she entertained what seems like a delusive belief that Dr. McFarland had been guilty of the grossest immorality. In her "Mystical Key"* referring to a time when she had been four months in the hospital; she remarks:

There were confined in this, one of the worst wards in the house, some very attractive ladies, who seemed to be perfectly sane, and insisted they were put there for the doctor's special accommodation. These facts were communicated to me in confidential tones while under their windows on the outside.

In view of these facts one is compelled to regard Mrs. Packard as either insane or lax in morality and as other evidence of moral laxity or lax conduct on her part is lacking, disorder of mind seems the more probable explanation. All things considered, the question of her insanity seems to require further elucidation.

The undesirable and injurious results of the Jury Commitment Law may now be briefly considered together with the advantage gained by the statute replacing this law which has been in operation since 1893. The former law failed to recognize the distinction between a trial and an inquest. The adjudication of insanity followed the line of criminal procedure. The unfortunate patient was "accused" of insanity and if "convicted," taken into custody by the sheriff exactly as in criminal procedure.

The entire annals of the insane in the state of Illinois furnish no greater evidence of cruelty to the insane and their friends than this so-called "reform" so zealously promoted by Mrs. Packard. As a matter of fact, more sane persons were found insane by jury trials, as shown by the reports of the institutions from year to year, than were ever wrongfully committed under the earlier system. The effect upon the patient was frequently detrimental; the impression gained by the process arousing in his mind the idea that the court procedure was for the purpose of substantiating some charge against him, and when found insane he believed himself innocently condemned.

Another, and a most serious injury entailed by this law, was the

*Page 60.

procrastination of all suitable care and treatment. The conveying of a patient to court and affixing upon him what was considered as "the brand" of a public record of insanity was such a repugnant procedure that serious harm was done to the patient by the delay in seeking the care of the hospital. Rather than go through this ordeal the friends would leave the patient without care or suitable treatment for months and even years, his insanity in the meantime becoming chronic and incurable. Dr. Hack Tuke of London in his work on "The Insane in the United States,"⁷ writes as follows:

The publicity is a serious objection, and I was informed that people often kept their friends at home rather than make their insanity known. He also quotes my own remarks, that "The best feelings of all right minded persons are outraged by seeing presented in court the depraved and unnatural acts and speech of otherwise reputable men and women."

Dr. Archibald Church, at an "indignation" meeting held for discussion of this law, February 16, 1891,⁸ stated he had seen

"a man suffering from acute mania shackled hand and foot, and then placed in a canvas sack and carried 30 miles to the county seat, and subsequently on the same day brought 50 miles to the asylum." He had seen "a woman of medium stature tied with 40 feet of rope, held by four men and carried in an open wagon 20 miles to be tried."

It is impossible in the space at my command to discuss the law at present in force, which was passed in 1893, further than to say this law provided for appointment by the court of two medical commissioners to examine into the mental condition of the patient and report their findings. These were reviewed by the court and warrants issued for commitment or not, according to the discretion of the judge. The law left the jury trial available to any patient who should request it. It also provided for voluntary commitment previously unknown in Illinois. It was provided that inquests in lunacy should be in open court or in chambers at the discretion of the court. Court was also authorized to require all persons not directly interested to withdraw from the court room during the inquest. The law also provided for freedom in correspondence and communication with friends on the part of patients; also required that a record should be kept of all restraint or seclusion practiced in the institution, and that these should only be employed upon the order of the physician in charge. Provision was also made that "any person who may be in the early stages of insanity who may desire the benefit of treatment

⁷"The Insane in the United States and Canada," by D. Hack Tuke, M. D., L.L. D., London, 1885, p. 69.

⁸Chicago Medical Recorder, March, 1891.

in a state hospital for the insane as a voluntary patient, may be admitted to such hospital on his own written application, accompanied by a certificate from the county court stating," etc., "Provided, That all voluntary patients shall have the right to leave the hospital at any time on giving three days' notice to the superintendent."

With reference to the working of this law I will briefly state the experience obtained in the 19 years during which it has been in operation.

The process of adopting the new procedure was somewhat slow, as is always the case with the establishing of new legal precedents. In Cook County, with the city of Chicago within its borders, no change of procedure was brought about for several years. The vast majority of the cases from this county were and are still accumulated from week to week in the detention hospital and disposed of by jury trials on a certain day of the week—the number ranging from a minimum of 10 or 12 to 30 or 40 in each successive week. In Cook County the cases are quite exceptional where a commission is appointed, chiefly in view of the fact that in certain cases where a commission was appointed, troublesome litigation ensued rather from local causes than from any defect in the law. Even Cook County, however, is adopting the commission form of procedure with increasing frequency and no dissatisfaction with the law has ever come from any source to my knowledge.

I present, herewith, a table showing that of the total commit-

COMMITMENTS IN THE STATE OF ILLINOIS FOR YEAR ENDING SEPTEMBER 30, 1911.

How Committed	Institutions.						
	Elgin State Hospital	Kankakee State Hospital	Jacksonville State Hospital	Anna State Hospital	Watertown State Hospital	Peoria State Hospital	Chester State Hospital
Medical certificate.....	59	159	304	330	168	190	.....
Prison certificate.....	.....	.....	.....	.....	.....	.....	17
Verdict	339	374	.....	34	.....	65	.....
Mittimus .....	.....	4	.....	.....	2	.....	14
By order of court.....	.....	.....	7	.....	.....	.....	.....
Voluntary	10	35	13	7	61	51	.....
Transfer .....	.....	.....	.....	.....	.....	.....	4
Reinstated escapes .....	.....	.....	.....	5	.....	.....	.....
Totals for year.....	408	572	366	376	305	315	35

ments in the state of Illinois for the year ending September 30, 1911 (2,377), 1,219 were by warrant issued on medical certificate; in other words, without jury trial; and 928 were by verdict. These 928 jury commitments were almost wholly from Cook County. Taking the five institutions which do not receive patients from Cook County, out of 1,216 commitments, there were only 215 by jury verdict. There were also in the year ending September 30, 1911, 177 voluntary commitments. The working of the present law has been without criticism or friction or any complaint of illegal commitment or false imprisonment.

CONTRIBUTORY CAUSES OF SOCIAL VICE.*

WILLIAM HEALY, M. D.

Director Juvenile Psychopathic Institute, Chicago; Associate Professor Mental and Nervous Diseases, Chicago Polyclinic; Member Chicago Vice Commission.

We must define our subject, not for pedantic, but for decidedly practical reasons and in defining we may perchance somewhat illuminate for ourselves the whole problem. I take it that we are not now considering the whole question of what is termed sex immorality, but are confining ourselves rather to the topic of prostitution and its causes.

In regard to the latter, for comparison's sake, we must remember the existence of the woman or girl who is a law unto herself in matters sexual and yet, perforce of her superior mental equipment or economic condition, is far from belonging to the genus, *puella publica*. We must also remember that prostitution is taking place just as certainly when a woman, even in the marriage relation, sells her body for any consideration whatsoever and gives herself in evidence of anything save her own affections. And we must not forget the powerful needs and possible frailties that we as physicians come to know very generally exist, sometimes even in the very persons who proclaim the surest knowledge of just what sex morality really is.

Since I am asked to speak on the contributory causes of social vice, I am free to say under this same topic of definitions that here as elsewhere it is fairly difficult to discriminate between what is fundamental and what is contributory in the field of causes. The sequence is so rapid and seems so readily invertible that it becomes almost metaphysical to discuss which came first, the fowl or the egg. But I take it that the planners of this symposium thought of the pivotal center of the whole question being occupied by the great phenomenon, human sex instinct. And perhaps not only may this be considered as a bare phenomenon, but as a great human need, which has moved thrones, as it impels men with their dinner pails whom one can see ascending the steps of red-light houses on Saturday afternoons. And certainly such was the conception of the successful madame when she visited the good padre in his parish church across the way, he who had seen fit to make war upon her house. "Father, you are serving men's needs in one way and I in another. Why can't we be friends?"

Part of what there is back of this particular example of social demand and supply is the province of our present inquiry, and which

*Address given before Physicians' Club of Chicago, January 10, 1913.

is the more important of the two factors, demand or supply, in the production of prostitution would prove a hard task to calculate. To-night I shall deliberately leave out all discussion of the foundations of the demand and confine ourselves to the supply, knowing full well that I am doing violence to the essentials of fairness and justice which should be invoked in any thorough-going discussion of the subject.

And then I take it that I am called on to take up such contributory causes as come within the special ken of our profession and not to dwell on, say, the economic issues back of the social evil. Of course, knowledge of these is often incidentally gained while one has other interests primarily at stake. I came to know that one night while we of the Vice Commission were sitting, a young woman was accosted by a protective society agent as she was about to enter one of the houses in the newly formed West Side district, to become a prostitute for the first time. It was just a case of financial stress. She was employed by a wealthy manufacturer, who has more than once publicly expressed himself as deeply interested in the problem of the fallen woman, and she was finding herself totally unable to support herself and her invalid mother on his six and a half dollars a week. Or one found the intelligent and polite woman in an Armour avenue house who was supporting her two daughters at boarding school by her good earnings.

Of course, if one wanted to take the intense psychopathological view which is sometimes maintained in explanation of the fecundity of the sources of supply one might maintain that there must have been something wrong even with that working girl. See how strangely deficient in foresight she was. If she had been possessed of full mental capabilities would she not have carefully calculated or at least posted herself before taking such an important step? She would have at least drawn from the library the volume on "What a Girl of Twenty-One Ought to Know," and learned that it is a mighty dangerous thing for a woman with the bacterially vulnerable tissues of innocence to take chances with a strange man. Why, as to this matter of foresighted intelligence, one of the celebrated Binet tests for determining the mental ability of a ten-year-old includes the question, "What would you do before taking part in an important affair?"

But one does not need to have any very intense psychopathological prejudice in order to feel sure that a vast number of *puella publicae* are mentally deficient or aberrational, and that one who would have any deep understanding of why they are what they are, must be equipped for the study with knowledge both medical and psychological.

There is a reason; and why this girl in this environment or under these temptations succumbs and another girl under like external circumstances withstands, is a fair subject for inquiry. How important the individual make-up is I could illustrate by the striking example of twins, who were brought up together in a small eastern city and attended the same school and who were almost inseparable, even in the recreations I am going to tell you about. The one at 12 or 13 was a typical, normally gawky, preadolescent; the other was already four or five years ahead of her from a physical standpoint. Already matured, she was unusually pretty and had the developmental charms of a young woman, but she was a grade or two behind her sister, who was not at all precocious, and she had had during her life several attacks of convulsions. Sex knowledge came to them both between school and home, the one rapidly embraced a career which in its extent and calm surreptitiousness remains almost unequalled in my knowledge, while her twin went with her for a couple of years through all this, just as calmly rejecting all advances, and even waiting at these times between school and home for the plump and dull sister to get through and come along. From this and many other examples one can easily see that the occasion itself is only one of the two parts of the foundation upon which is built the prostitute's career.

I have looked in vain for a satisfactory study of the underlying, and one might say fundamental rather than contributory, causes to be found through thorough study of the personalities and traits of the women who get into this life. (And I say this knowing full well the good work of Madame Tarnowsky and the more recent extensive studies of Octave Simonot at the hospital of St. Lazare.) The fact is that such studies are just beginning to be made and that the technique is only just now in process of being evolved. Certainly the Vice Commission report of conditions as they were to be observed through investigations on a large scale could not be expected to dwell on these underlying phenomena, and indeed it rarely hints at their existence.

Those of us who have at all invaded the field perceive that no work on the subject will prove satisfactory unless there is union of well conducted biological studies with psychological investigations—the latter to treat at least in qualitative fashion of mental abilities and of the general trend of the mental content. The study of what may be in the psyche, even subconsciously, acting as a driving force, including the type of mental pictures or ideas that prevail in consciousness, appear to us as of great import. Indeed these very mental factors are intimately woven with social and even economic causation. With all the modern findings about psychogenetics it behooves us for ethical

and social reasons to pay attention to the effect of many early mental as well as physical experiences.

It is of more than passing interest to us to note that Miss Miner and Miss Katherin Davis, after all their years of experience with New York public women, have come to feel keenly that they can not in all common sense introduce therapeutic social measures without diagnosis and prognosis obtained from medicine and clinical psychology.

If girls are taken when they should be, when they are merely on the verge of prostitution one can readily determine that there have been frequently early mental experiences which color to the saturation point their views of life. Let an individual be brought up under animal-like conditions of bodily exposure, which is made necessary by crowded housing conditions, and what chance, knowing the strength of early impressions, can we believe such an individual has for the development of anything save an animal-like conception of what, for the sake of our civilization, should be regarded as our most intimate functions. The possible imaginative perversions which may be built up on such a background of experience are to be witnessed in some of the extraordinary court cases where girls may give false but damaging testimony against even their own brothers or fathers. I know of nothing which so knocks away the underpinnings of social and moral integrity as such unfortunately acquired sex knowledge.

One will find developed in all people, if you only look for it, even among our unfortunate sisters, the elements of a social philosophy, which is just as truly built up from experiences presenting themselves to the inner consciousness as is the ethical system of a great philosopher. There are certain types of thought or pictures, which, predominantly recurring, form the individual's social faith and, in the classes under discussion, make for expression in illicit sex life. If one does not believe this, let them become acquainted with groups of sexually vicious girls, such as may be held in an institution, and learn the trend of their thoughts and the morally weird conceptions of society's foundations, and the outrageously vile conversation which preponderates. With such a collection of women or girls it is as it is on the female wards of an insane asylum; *Avernus* itself is reached. The most common complaint that I have ever heard from those incarcerated for the first time is about the terrible world-philosophy of sex delinquents and their continual dwelling thereon.

I should hesitate to deal in any way with statistics, but I am ready to say from my own experience, as well as from the findings of others, that there exists a very considerable percentage of feeblemind-

edness and aberrational mental traits among the public women of any large city. I could cite you, were it necessary, case after case of epilepsy among immoral girls or women, and could show you the innate tendency towards moral laxity which exists among mental defectives. This is not only passive but sometimes frightfully active. One poor mother ventured to tell me that her feeble-minded daughter had seduced simply scores of boys in her community.

A study of these defectives leads us back to consideration of how came vicious impulses first to get started even in their minds. Further investigation shows us that typical associative processes, narrow in scope and ill directed though they may be, and all sorts of mental imagery are actively at work in the consciousness of these people too. And the genesis of their unfortunate impulsions may also be environmental or corporeal. In proof of this note the clean living which feeble-minded girls readily fit into if properly protected in institutions.

Studies for practical purposes will inevitably lead to the conclusion that many types of prostitutes are irrevocable menaces to the community and must be permanently segregated; and what can be done with the remainder depends upon how deep set their inertia, or their impulses, or their controlling types of thought really are, what their background may be in heredity or physical conditions, and how much they can be controlled and altered by environment. Prognostabilities in this field are in their infancy, as well as efficient methods of treatment. As it stands now there might be recorded many failures of even the most carefully selected methods of social effort, but yet successes occasionally loom up which seem worth a world of endeavor. As an example of the latter, there is the girl we know who was fairly dragged from a house of prostitution four or five years ago by a certain social worker, and she is now one of the most trusted and best paid employes in an establishment noted for its keen attention to business efficiency.

Now if what I have had to say in the little space at my command this evening has any significance at all for you, it surely must be by way of connotation. There has been no room for exploitation of details. As a last word may I say that in all this matter I can think of no preventive measures which are so promising as the insistence on those economic and environmental conditions which are the backbone of decent living. Then there must be protective segregation of defectives. Follow these up with intelligent care for the safety and sane purity of the earliest mental impressions, this being best evolved through confidences with parents, who must themselves be decent enough to deserve their children's confidences.

THE WORK OF THE VICE COMMISSION.*

By EDWARD M. SKINNER.

Efficiency in the government of this country has been greatly increased by the appointment of commissions for the study of problems of importance to the people.

Ours being a government by the people, for the people, administrative officers have come to appreciate the value of special consideration and recommendation from citizens, expressing as they do without prejudice, political or partisan bias, the voice and need of the community from which they are chosen.

The presidents of this nation have appointed commissions for the study of national problems, whose reports have been of great value to the country. In large cities such as our own the mayors have from time to time appointed committees or commissions of citizens for the study of some particular condition and asked for recommendations based upon the conditions.

The value of the recommendation of any commission of citizens must obviously depend upon: First, the character of such citizens, and, second, their knowledge, intelligence or ability.

On June 27, 1910, the honorable city council of this city created the so-called Vice Commission by a vote of 62 yeas and 0 nays.

On July 5, His Honor Mayor Busse, in accordance with this ordinance, appointed a commission of two women and twenty-eight men. The city of Chicago was making history, for the first municipal commission for the study of the social evil had been unanimously appointed by its common council.

In the mayor's statement to the press at the time of the appointment of this commission, he stated in conclusion as follows:

"I am sure that we have men and women amongst us who can help us in finding a slow and partial solution for these questions, pending perfection in the men and women who make up society.

"We will welcome such help. I am sure that all over the world governments will welcome the results of these deliberations. I therefore respectfully appoint the following as a commission on the problems of vice, requesting them to deliberate on the question and to present the results of their deliberations for the consideration of this community and the guidance of those charged with administration of the municipal government."

This commission was composed of eight priests, ministers and

*Presented before the Physicians' Club of Chicago, January 10, 1913.

rabbis, representing different religious beliefs, and different nationalities; six physicians, representing different schools, societies and colleges; two judges, one the chief justice of our Municipal Court, the other the judge of our Juvenile Court; two attorneys of broad knowledge; the head of one of our universities; three university professors, whose work had special bearing on the subject; two heads of institutions of learning and correction; three interested in social reform work of a practical nature, and three representing the so-called commercial or business interests.

The duty of the commission as stated in the ordinance creating the commission was:

Sec. 3. It shall be the duty of the Vice Commission and the members thereof to inquire into conditions existing within the limits of the city with reference to vice of various forms including all practices which are physically and morally debasing and degrading, and which affect the moral and physical welfare of the inhabitants of the city.

The commission shall from time to time transmit to the mayor and the city council, a written report of existing conditions, as it may find them, respecting vice, with such recommendations as it shall deem advisable for the suppression thereof.

At the time of its appointment the commission was granted a fund of \$5,000 to which was added later another \$5,000, this amount being the total contribution of the city toward the expense of the investigation, study and report which cost \$——, the balance being raised by the commission itself.

The study and investigation of the commission was made along the following lines:

Existing conditions, investigations; under 40 sub-heads:

Social evil and saloon.....	12 sub-heads
Social evil and police.....	22 sub-heads
Sources of supply.....	15 sub-heads
Social evil and crime.....	15 sub-heads
Child protection and education.....	8 sub-heads
Rescue and reform.....	7 sub-heads
Literature and methods.....	6 sub-heads
Medical questions	19 sub-heads
Law and legislation.....	11 sub-heads

The commission was greatly impressed with the ignorance of the citizens of the immoral conditions existing in the city and yet the

absolute confidence with which he volunteers his opinion as to the proper method of handling the vice problem.

The commission met this latter fault with real sympathy, its members entered upon the initial deliberations and investigations with similar certainty.

As time went on and facts were presented this certainty gradually disappeared.

A period of revulsion against conditions followed.

Then began the constructive period, months filled with progressive studies based upon incontrovertible facts, widespread investigations, the fullest possible discussion and debate amongst its members with the result that the uncertainty was changed to a final certainty.

The first truth impressed upon the commission was that prostitution was a commercialized business controlled by men.

Ruled by the same conditions that obtain in legitimate commercial enterprises that of supply and demand.

And as in the legitimate business of today supplying the normal existing demand is not sufficient for the amount necessary to a profitable business and modern methods not only supply but create the demand so in the commercializing of prostitution the men that control, create a demand and then supply it.

The commission early in its considerations recognized the importance that would be given by the world at large and by the citizens of this city to the subject of segregation. And in all of its study and investigation this problem was foremost.

With the same confidence in his opinions as the man on the street there were those of the commission who felt this most important subject should be the first to be considered and it was only through the diplomacy and far sightedness of the chairman, Dean Sumner, that a consideration of this question was postponed until the members had the conviction of a year of study and the results of a world-wide investigation. During this time no consideration of the question was permitted and no member of the commission was advised as to the conviction of the others. The wisdom of this policy was demonstrated when at the conference of the entire commission when the vote was taken not one single member was in favor of segregation. That thirty minds after studying this problem for a year unanimously agreed should count for much to this community of which they are a part.

The result of the investigation and the recommendation of the commission are embodied in this report and no man, however much

he may feel he knows about this great problem, should venture an opinion without a careful study of this report.

The principal recommendation, the summing up of the work of the commission is embodied in these principal recommendations:

Constant and persistent repression of prostitution the immediate method; absolute annihilation the ultimate ideal.

The appointment of a morals commission.

The establishment of a morals court.

That recommendation means: No segregation.

As long as you have segregation you have commercialized vice.

Segregation means licensed vice without an income.

Segregation means corruption of morals, mind and body.

Segregation means constant temptation of political and police corruption.

Segregation means an open invitation to the youth of our city and the visitors to this city.

Segregation offers an ever open attraction to the low-minded, weak-minded and vicious.

Segregation is one of the principal causes of crime.

Bring the problem right home to yourself. Could you, knowing the evils of segregation and its influence on the community—could you sign your name to a request for its existence? I do not believe it.

There is only one ingenious answer to the demand to wipe out segregated districts, the statement that by so doing you will scatter these vicious places throughout the residential districts.

Whether this suggested transfer of vice from being a menace to the community, to a menace to the individual, is meant as merely an opinion or a threat, personally, my answer would be the same. There need be no further increase of the disreputable places in the residential districts than the administration of your police power permits.

Letters received from all over the world characterize the report of this commission as the most remarkable document of its kind ever given to the world—clear, courageous, hopeful, earnest, sincere, constructive, without exaggeration and scientific.

Eighteen months have passed since in response to the unanimous request of your common council, this commission made its definite recommendation. Up to this time no action has been taken along the line of these recommendations by your municipality.

Was the council as earnest in its request as the commission was in its compliance?

THE VICE PROBLEM.*

By DR. ABRAM W. HARRIS,
President Northwestern University.

The woman seller in Chicago gathers a profit of \$15,000,000 a year, some say, and I think that estimate far too small. Tonight, thousands of women are merchanting their bodies. A multitude of boys are planting the seeds of the Black Plague, the worst disease of history. And all prostitution is illegal. Can any statement be more astounding? Oh, yes. It is this. The great, rich, religious city of Chicago is doing nothing about it.

If a community takes the position that vice cannot be cured and that nothing better is possible than to reduce its evils and to keep it out of sight, then there is much to be said for the Japanese method of complete segregation and careful control; but the word segregation as used in America is not such complete segregation. With us, it means toleration of an illegal business within vaguely defined districts which are occupied not only by vice but also for business purposes and usually for residence by a large number of the poorest and most helpless of the community. Such segregation is no remedy, but tends to interfere with progress towards a cure. If vice is to be tolerated, there is not much to choose between segregation and dispersion, but the disadvantage is on the side of segregation.

Segregation is objectionable because it is likely to be accepted as a remedy. A man who adopts it is like the one who saves his own loss by passing a counterfeit coin on another. It may be said that neither is dispersion a remedy, and it may be said truly; but dispersion incites the public to action while segregation favors neglect.

Segregation is unfair to innocent and conscientious owners of property in the segregated district, for while it enormously increases the value of property used for disreputable purposes it depreciates the value of nearby property. It might be an interesting problem for the lawyers to determine whether those who suffer may not have legal redress against the community for the toleration of an illegal cause of this depreciation.

Segregation is outrageously unfair to those poor, helpless people who must live in the immediate presence of the congregated vicious element. One is led to believe that it is because they are helpless and cannot defend themselves that the better element of the community

*Presented before the Physicians' Club of Chicago, January 10, 1913.

allows conditions to be forced upon them which it would not tolerate in its own presence.

Segregation concentrates vice, and so puts it under the legal supervision of a small number of city officers, and by so doing makes their burden and responsibility heavier than they can bear. The same concentration enables vice to combine its money and influence for the temptation and corruption of public officers, while reducing the number to be tempted, and so making the problem easier.

Segregation, by hiding vice from public view, relieves it of the restraint of public opinion and permits it to flaunt itself; and, on the other hand, it makes it easy for the idle and curious to find it with little risk of detection; and it leads to the seduction of numberless curious boys, who are weak rather than bad.

For these and other reasons, it seems to me there is hope for improvement of the vice situation if the policy of segregation be given up. Dispersion will compel the community to face the evil and will teach it the facts. It may be said the city will not tolerate vice in the better quarters. No, and that is where the hope lies. If the community is to tolerate the vice plague then it is only fair that the community in general share the disadvantages. It is mean for the strong, who are able to do, to use their strength only to put the evil over upon the weak, who can do nothing. An even distribution of the haunts of vice throughout the city would soon show that the community can do something if it tries.

If vice is to be cured, there must be, first, publicity; then, honest, scientific, and courageous study of the problem together with patient attempts and experiments. Harsh methods and occasional persecuting of unfortunate, and if you please, wicked women, will accomplish little more than to set the people to thinking. The community must recognize its responsibility to cure a community evil, must make laws that can be enforced, and must put an end to the open and well-known ignoring of the law, by those responsible for its enforcement.

There are some things we can do at once. We know that one great avenue to vice is the disreputable dance hall. For those that use these halls, the community can provide decent opportunities for amusement of the kind they will use. Again, it is possible for a community which knows that many girls in the city are working for less than a living wage to accept guardianship over them. Let Chicago require every employer hiring girls for less than a minimum pay to register them, and then let it appoint public guardians who will when necessary take the place which the family does in many cases,

and at the public expense help them until they are able to care for themselves. In a country which is so thoroughly devoted to the protection of American labor, one need not apologize when he calls for such protection of American labor that is most in need of protection.

You may say I am preaching socialism. I don't care, if it means salvation. And I'll take this text from the words of a master: "Bear ye one another's burdens."

GENERAL CONSIDERATIONS ON THE VICE PROBLEM.*

By VERY REV. WALTER T. SUMNER.

Every man today is compelled by the keenest competition to live at his best. That which takes from him his power to meet the demands which labor and society put upon him must be shunned. We may preach sermons, make addresses, publish pamphlets, books and reports upon vices of all kinds, but they will be most forceful only when they convince a man that he must not only some day pay the penalty for them in the future world, but that in this world they are taking away from him his power to live at his best, and thereby lowering his efficiency. We are approaching a subject today which is decreasing the efficiency of the people of the nation. The integrity of the home, the nation and the individual himself demands the repression of the social evil as a commercialized business.

We have just been listening to a most powerful exposition of the physical dangers of the social evil. We must be convinced therefore that prostitution is pregnant with disease, a disease infecting not only the guilty, but contaminating the innocent wife and child in the home with sickening certainty almost inconceivable: a disease to be feared with a great horror as a leprous plague; a disease scattering misery broadcast, and leaving in its wake sterility, insanity, paralysis, the blinded eyes of little babes, the twisted limbs of deformed children, degradation, physical rot and mental decay.

Conditions in connection with the Social Evil have been steadily growing worse in our great communities. Some two years ago there was a strong feeling in Chicago that something should be done to control the situation, and to at least minimize the evil. The Mayor was the recipient of all sorts of petitions, visitations by committees and deputations from various social and religious organizations. Located in the West Side levee district, the Cathedral, over which it

*Presented before the Physicians' Club of Chicago, January 10, 1913.

is my honor to preside as Dean, was brought face to face with the worst phases of the problem. Viciousness and lawlessness, coupled with the fact that four thousand men were rendered service each night, made the problem a most pressing one. A plan occurred to me, which I thought might bring at least light upon the situation. It was to ask the Mayor to appoint a Commission of representative citizens to investigate, deliberate, and return to the City Council a true statement of the conditions existing in Chicago in connection with the Social Evil, and recommendations as to how the situation could be changed. The work of the Commission was to be financed by the City. I laid the plan before the head residents of the social settlements, which Miss Addams made possible through a dinner at Hull House. The social workers listened with a sympathetic ear, but felt unable to take any action in the matter. Sometime later the Federation of Ministers of Chicago, representing between seven hundred and eight hundred congregations, asked me to write a paper on the subject. At the close of the paper I presented a resolution, asking the Mayor to appoint such a Commission. A committee was appointed by the Federation to wait upon the Mayor and take up the matter with him, which it did. As a result Mayor Busse appointed a Commission of twenty-eight men and two women; gave the entire project his hearty support; called upon all departments of the City Government to aid us in our investigation, and secured an initial appropriation of five thousand dollars (\$5,000) for the work from the City Council. Later through his efforts the City Council voted another five thousand dollars (\$5,000), making ten thousand dollars (\$10,000) received from the City. I might say at this point that eight thousand dollars (\$8,000) more was contributed by private individuals, making the total expenditure of the Commission eighteen thousand dollars (\$18,000). This included the printing of fourteen thousand (14,000) copies of its report and the distribution of the same—a book of four hundred (400) pages and over.

It may be of more than passing interest to you to know the personnel of this Commission. It was made up of such men as the Chief Justice of the Municipal Court, the United States District Attorney, the Judge of the Juvenile Court, the Commissioner of Health, the President of Northwestern University, four or five Protestant ministers, two Roman Catholic priests, a Jewish Rabbi, several professors from the University of Chicago, several social settlement workers, representative business men, doctors, several lawyers, the Superintendent of the City Prison, and a representative of the

Federation of Women's Clubs and the head of the Mary Thompson Woman's Hospital. A more representative body of men and women could not be found in the City of Chicago. I am giving to you, therefore, not my own opinion, but the opinions of a Commission whose judgment should have weight.

The Commission has been greatly impressed in its studies with these two facts: first, the citizen's wilful ignorance of the immoral conditions within the City; and second, his off-hand advice as to the proper methods of handling the vice problem, given with absolute confidence and finality. The Commission had met this latter fault with real sympathy. Its members entered upon the initial deliberations and investigations with a similar certainty. As time went on and facts were presented this certainty as to the best solution of the problem gradually disappeared. A period of revulsion against conditions and of doubt as to the best course to pursue followed. Then began the constructive period, months filled with progressive studies based upon incontrovertible facts, with never a backward step, illuminating conferences, wide-spread investigation in other cities as well as Chicago, the fullest possible discussion and debate amongst its members in frequent meetings oftentimes from four to twelve hours in duration, with the result that new uncertainty was changed to a final certainty and thirty minds were absolutely unanimous in their conclusions. We believe such harmonious unanimity on the part of men and women representing so many diversified callings in life, and so many groups of society, must be a fair indication of the public mind and conscience of the citizens of Chicago. Again, this unanimity gives to the decision a weight which it could not have possessed had there been a decided difference of opinion amongst its members with the possible presentation of a minority report. That there must be constant repression of this curse on human society is the conclusion of this Commission after months of exhaustive study and investigation—a study which has included the academic with the practical; moral ideals with human weaknesses; honesty of administration with corruption; the possible with the impossible. It sought to meet all questions fairly; it made every effort to work with intelligence; it kept constantly in mind that to offer a contribution of any value such an offering must be, first, moral; second, reasonable and practical; third, possible under the Constitutional powers of our Courts; fourth, that which will square with the public conscience of the American people.

As plagues, epidemics and contagious diseases old as the world

have given way before the onslaught of medical science; as slavery in this country has been rooted out by the gradually growing conviction of an American conscience; so may the Social Evil be repressed proportionately as the American people grow in righteousness and in the knowledge of this curse, which is more blasting than any plague or epidemic; more terrible than any black slavery that ever existed in this or any other country; more degenerating to the morals and ideals of the nation than all other agencies against decency combined.

The law is only so powerful as the public opinion which supports it. It is the habit of Americans when they make laws to insist on ethical ideals. They will not compromise. They have been endowed, however, with a fine ability to be inconsistent, and having once declared their ideals to find no difficulty, when it comes to the administration of the laws, to allow officials to ignore them; to do things not in the laws; and to substitute a practice which is a *de facto* law, though technically illegal. This is the basis of graft and the greatest evil in Municipal government.

The Vice Commission of Chicago has only tried to blaze the way. It was the first Municipal Commission ever appointed upon such a subject. It was financed in a very modest way, as pointed out before, receiving ten thousand dollars (\$10,000) from the City and eight thousand dollars (\$8,000) from private sources. It prepared a report of 400 pages of which it has circulated 14,000 copies. Another edition of 10,000 copies is contemplated. You may ask, what has the Vice Commission done in Chicago? We have not had a sympathetic Administration, and we do not expect anything will be done perhaps for the next year or more. It takes time for ignorance to be displaced by knowledge, and when the people of Chicago get a knowledge of the real situation, I tell you they will not rest content with that knowledge, but will do something to change the situation—a situation which is breaking down character more than all the saloons or gambling dens or vicious conditions in the community, and is making for more inefficiency and dishonesty in our public administration than any other influence.

It has been said very wisely that we do not know the real situation in connection with the Social Evil in great cities. Nearly every member of the Vice Commission knew some phase of it in Chicago—none knew the whole situation. We, therefore, began our deliberations only after we had made a complete investigation of the entire situation. Had we followed any other course, and taken an earlier vote upon what we considered to be a solution, or a partial solution, of

the problem, we would have had as many motions prevailing as there were members of the Commission. Basing our recommendations upon facts, however, we came to an absolutely unanimous decision. This is more remarkable for the reason that we are dealing with a subject that is not a science—a subject where one man's opinion may be as good as another, so long as two things obtain: First, full knowledge of the situation; second, a moral viewpoint. May I pause here to give you the recommendation of the Commission? It is "Constant and persistent repression of prostitution, the immediate method; absolute annihilation the ultimate ideal."

In beginning our investigation we divided prostitutes into two classes: the clandestine group of girls who must eke out an existence in some way to augment their starvation wage; the kept woman and the harlot, or, as she is known in the business underworld, "charity"; and, second, the professional group, made up of those who devote all their time to the business. The number in the clandestine group it is manifestly impossible to more than guess. It is true we might give an estimate, but what we desire is facts. To find the number of the professional group we asked the Police for a list. The list furnished us gave the number as 1,012. With this list as a basis, our investigators found in all 4,200. The Commission, therefore, makes an ultra-conservative estimate, 5,000 professional prostitutes in the City of Chicago. Since the publication of the report the Civil Service Commission of Chicago stirred to take action by the Vice Commission report, has found a sufficient number to warrant them in stating as their conservative figure, 15,000.

With some sixteen investigators in the field, we were able to secure accurate figures as to the amount of service rendered, the prices charged and the profits resulting. Taking the number of women on the Police list alone, in recognized houses of prostitution, as 1,012—mark you, not 5,000, which is our estimate—and multiplying that number by the average number of services rendered daily, or fifteen per individual, we find the grand total of 5,540,700 services rendered per annum. Multiply this by five, and note the appalling record!

We also know the amount of money paid for service, and, therefore, it is not at all difficult to learn the profits based on the 1,012 prostitutes. Without going into further figures, I shall simply state that the 1,012 bring in an annual profit of over \$16,000,000.00 each year. Again, multiply this by five, and note the result! The first truth, then, that I desire to impress upon you is the fact that prostitution has become a *commercialized business of large proportions with*

tremendous profits of more than sixteen million dollars per year, controlled largely by men, not women. Separate the male exploiter from the problem, and we minimize its extent and abate its flagrant outward expression.

One thing we must not forget—prostitution can never be legalized. It is unconstitutional. Therefore, what do we do? We turn over to that department of public administration, which is most liable to be neither honest nor efficient, this greatest of social problems. I refer to the Police. We give to them a threefold power, first, to make *pseudo*, to take the place of *de facto* laws which cannot exist; second, the power of the Judiciary to expound these *pseudo* laws; and third, the power to execute the laws and punish offenders.

And, mark you, no group of citizens can stand up against such tremendous power as this, where they are handling an illegal business whose receipts are \$16,000,000 a year, and not break down under it. There are honest, efficient policemen, but their work is exceedingly hard.

We can make general statements like this without doing injustice. I do not want you to think for one minute that we do not have honest policemen. We do, and all praise to them! There are men who are trying to do their duty, but this evil is now no longer a mere social problem—they are handling an illegal commercialized business under whose influence they are bound to go down sooner or later.

Therefore the whole matter must be taken out of the hands of those who might be tempted to exploit vice for the money there is in it. The Vice Commission of Chicago recommended the establishment of a new Morals Commission appointed by the Judiciary with police powers to take and carry out this order, the *constant repression of the Social Evil*. We are none of us so hopeful, nor so impractical, as to believe that we are going to wipe this thing out in a few years or perhaps in one generation; but we can constantly repress it. The Commission further recommends the appointment, if possible by the Bench, a Morals Commission of five men serving without salary, the highest type of men to be found in the community, absolutely beyond all temptation of pecuniary reward or exploitation, who will take charge of this repression. After repression has taken place, or while it is in progress, the Commission recommends the establishment of a Morals Court, a branch of some existing Court. This will insure that the girl who does walk the streets will not be fined and so cast deeper and deeper into the clutches of the cadet or procurer, to be robbed

still further; instead she will be put into some reformatory where there will be the opportunity given her to reconstruct her life.

I have never been in any agitation against the saloon as an organization (I speak of this to show I am without bias), and yet, during the past twelve or fourteen months I have become absolutely convinced that this is the most damnable institution at present existing in our social life. It is the greatest supporter of the Social Evil and the house of prostitution that exists. It is the greatest reaper of the profits of the Social Evil. You have only to know something of the tremendous profit from the money spent in houses of prostitution for drink to see this. When beer is sold for \$1.00 a bottle that costs a nickel, and drinks are sold for fifty and seventy-five cents that cost a dime ("phony" drinks are served to the girls while the men pay the same price for the girls as for themselves), you can see how it mounts up. We found 236 saloons which were nothing but houses of prostitution, and in the majority of cases their licenses were held by brewery concerns. The saloon may have come to us as an American institution, but it should never be allowed to exist as at present conducted. It should have but one room, instead of places with back rooms where girls may solicit, or rooms above for assignation purposes. If we must have the saloon, then it must be a one-room affair.

Many of the immoral influences and dangers which are constantly surrounding young children on the street, in their amusements, and in business life, may be counteracted and minimized by proper moral teaching and scientific instruction. Educators have come to feel something should be done directly by teachers in schools and elsewhere to impart some kind of instruction to counteract the evil knowledge which children acquire from evil sources. You have heard many splendid messages today of a most inspiring nature, calling us to greater protective and preventive measures. I think our greatest work lies in preventive influence, in constructive works which will take care of the amusements and recreations of children. Let us try and give the children the kind of recreation which they should have, and they will then be better able to defend themselves from the sinister temptations which come during the years of adolescence. Therefore we have tried in the City of Chicago to introduce the teaching of sex hygiene into the public schools. It is a most difficult matter to find the proper teachers for these children to present the subject in such a way that there shall be no suggestion. The initial responsibility lies with the parents and the parents should be made to feel that responsibility. We therefore planned to provide a

corps of medical men to go to forty or fifty public schools each in Chicago, each attending two evenings a week, to tell the parents of the children the facts which they should know, and then to instruct them to go home and tell the children.

An application for a license of any kind, whether it be to construct a house, run a push cart, peddle shoe strings, or keep a dog, must be accompanied with evidence that the applicants are responsible and reliable agents. But for a marriage license, one person, unattended and unknown and, so far as one can know, an epileptic, a degenerate, or who has in his blood a loathsome venereal disease may pass his name through a window with that of a similarly questionable female, likewise unknown, and be granted the divine right to perpetuate his kind and in turn thereby place a burden and a blight on society and the community for generations to come. The whole subject of selection in connection with the institution of marriage is of vital importance in connection with the Social Evil. Unwise selection produces innumerable contributory agencies through unhappy marriages, inherited degeneracy and disease, and the divorce evil.

Is it not a pertinent question to ask, if we guarded by sane methods the whole problem of selection, would we have today three million abnormal people in our institutions in this country costing the nation \$200,000,000 a year?

For the past year we have been thinking rather seriously of this, and it occurred to me to ask What is the Church doing to prevent the marriage of these people? In answer to this question we, the Cathedral Clergy, wholly apart from the Vice Commission, agreed that as a matter of protest and of education, and in a small way of protection to the few who come to us, we would marry no persons unless they brought to us a certificate signed by a reputable physician, to the effect that they were normal physically and morally and had neither an incurable nor a communicable disease. We shall at least stand as a protest and help to formulate public opinion and arouse public conscience in the matter. Perhaps we can stir parents to do what we ask the State to do, make the same demand upon those who seek their daughter's hand in marriage.

Education is going to change this situation more than anything else. It will be education of the public, not only of children, but of men as well as women. I remember when it was a common thing for the lawyer to keep a demijohn of liquor from which to drink with his clients when they called upon him. It used to be the fashion also for the business man to allow the salesman to take the customer

from out of town "down the line to see the sights." Today the self-respecting first-class business man is suspicious of the man on whom he smells liquor during business hours. Education building up public opinion has changed all this. It is now recognized that a man is not at the highest point of his efficiency when he has been drinking; that while his mind may be keen and alert, his judgment is not so good. It is much the same with the Social Evil. The business house no longer allows an expense bill for taking a customer "down the line." Today self-respecting salesmen would not propose such a thing to a customer. Education shaping public opinion is going to change the situation with regard to the Social Evil more and more as the public become more and more informed.

Organizations like this Vice Commission and those in other cities, sex hygiene and prophylactic societies, frank discussions in all groups of society, will do much to change the present attitude of men toward the problem. The new National Vigilance Association is bound to do a tremendous good throughout the nation by disseminating knowledge, by co-ordinating effort, and by investigation, nationwide, and by the securing of national legislation.

When we come to the discussion of the source of supply we find that prostitution demands youth for its perpetration. On the public rests the mighty responsibility of seeing to it that the demand is not supplied through the breaking down of the early education of the young girl or her exploitation in the business world. What show has she in the competitive system which exists today? Whatever her chances may be, to stand or to fall, she is here in hordes in the business world as our problem. Let us do something to give her at least a living wage. If she is not sufficiently skilled to earn it let us mix some religious justice with our business and do something to increase her efficiency which she has never been able to develop through no fault of her own.

Are flesh and blood so cheap, mental qualifications so common, and honesty of so little value, that the manager of one of our big department stores feels justified in paying a high school girl, who has served nearly one year as an inspector of sales, the beggarly wage of \$4.00 per week? What is the natural result of such an industrial condition? Dishonesty and immorality, not from choice, but necessity—in order to live. We can forgive the human frailty which yields to temptation under such conditions, but we cannot forgive the soulless corporation which arrests and prosecutes this girl—a first offender—when she takes some little articles for personal adorn-

ment. The life of an unprotected girl who tries to make a living in a great city is full of torturing temptations. First, she faces the problem of living on an inadequate wage—six dollars a week is the average in mercantile establishments. If she were living at home where the mother and sister could help her with mending, sewing and washing, where her board would be small—perhaps only a dollar or two towards the burden carried by the other members of the family—where her lunch would come from the family larder—then her condition might be as good as if she earned eight dollars per week.

The girl who has no home soon learns of "city poverty" all the more cruel to her because of the artificial contrasts. She quickly learns of the possibilities about her, of the joys of comfort, good food, entertainment, attractive clothes. Poverty becomes a menace and a snare. One who has not beheld the struggle or come in personal contact with the tempted soul of the underpaid girl can never realize what the poverty of the City means to her. One who has never seen her gravely fighting against such fearful odds will never understand. A day's sickness or a week out of work are tragedies in her life. They mean trips to the pawn brokers, meagre dinners, a weakened will, often a plunge into the abyss from which she so often never escapes.

Hundreds, if not thousands, of girls from country towns, and those born in the City but who have been thrown on their own resources, are compelled to live in cheap boarding or rooming houses on the average wage of six dollars. How do they exist on this sum? It is impossible to figure it out on a mathematical basis. If the wage were eight dollars per week, and the girl paid two and a half dollars for her room, one dollar for laundry, and sixty cents for carfare, she would have less than fifty cents at the end of the week. That is, provided she ate ten-cent breakfasts, fifteen-cent luncheons and twenty-five-cent dinners. There is no doubt that many girls do live on even six dollars and do it honestly, but we can affirm that they do not have nourishing food, or comfortable shelter, or warm clothes, or any amusement, except perhaps free public dances, without outside help, either from charity in the shape of girls' clubs, or friends in the country home. How can she possibly exist, to say nothing of live?

Is it any wonder that a tempted girl who receives only six dollars per week working with her hands sells her body for twenty-five dollars per week when she learns there is a demand for it and men are willing to pay the price? On the one hand her employer

demands honesty, faithfulness and a "clean and neat appearance," and for all this he contributes from his profits an average of six dollars for every week. Her honesty alone is worth this inadequate wage disregarding the consideration of her efficiency. In the sad life of prostitution, on the other hand, we find the employer demanding the surrender of her virtue, paying her an average of twenty-five dollars per week. Which employer wins the half-starved child to his side in this unequal battle? It would be unjust, however, to cast any reflection upon those girls who are brave and pure, by intimating that because they earn so small a wage they must necessarily be in the same class with those other girls who, unable to survive longer the heroic battle against poverty and self-sacrifice, have succumbed and gone down.

The end of the battle is not yet for that girl who struggles on alone and unprotected with her more pressing financial problems. The greatest menace is before her—the Man. See her as she meets him at the door of her place of employment! See her as she returns to her cheap boarding house! Huddled away among coarse and vulgar male companions, lonely, underfed and hungry—hungry not only for food, but for decent shelter, for a home, for friends, for a sympathetic touch or word; tired from a hard day's toil even to the point of recklessness—starving for honest pleasures and amusements—and with what does she meet? The advances of men without either a spark of bravery or honor, who hunt as their lawful prey this impoverished girl, this defenseless child of poverty, unprotected, unloved and uncared for as she is plunged into the swirling, seething stream of humanity; the advances of men who are so low that they have lost even a sense of sportmanship, and who seek as their game an underfed, a tired, and a lonely girl. She suffers, but what of him? She goes down, and is finally sacrificed to a life of shame, but what of him? He escapes as a "romancer." It is not just!

Representing myself, and not the Commission, I should like to say that while I am not so enthusiastic as some about all the reforms that are coming with woman suffrage, I do believe this: when women obtain the franchise, as I hope they will, they are going to stand up and fight successfully the present situation which allows men to exploit their sex in this most vicious commercialized business. All strength to them!

In closing my address to you I want to say a final word, and that is to men—men who support this business of women's souls, fifty per cent of whom are married men who have promised to be true and

honorable to some woman they loved—to all men whether they be barterers of the body or those who demand the service. There is only one moral law: it is alike for men and women. Again, there is a contract called matrimony which is a solemn contract made between those who love. It carries with it the elements of vested rights—even a solemn promise before God. A signature represents honor—it is there—likewise a promise—it is there. Has this contract been kept inviolate? If not, why not? To one who hears the ghastly life-story of fallen women it is ever the same—the story of treachery, seduction and downfall—the flagrant act of men—the ruin of a soul by man.

It is a man and not a woman problem which we face today—commercialized by man, supported by man, the supply of fresh victims furnished by men—men who have lost that fine instinct of chivalry and that splendid honor for womanhood where the destruction of a woman's soul is abhorrent, and where the defense of a woman's purity is truly the occasion for a valiant fight.

MILK.*

J. W. VAN DERSLICE, M. D.,

Assistant Professor of Pediatrics, Rush Medical College.

Milk is the one article which is used universally by man as food. That it is so largely used in the dietaries of infants and invalids makes it of extreme importance to the physician.

Milk was not intended to be exposed to air, but was intended to pass directly from the teat to the mouth of the consumer. This fact in itself probably explains why cows' milk normally contains bacteria. The bacterial content of milk has during the past few years attracted the attention of the medical mind and, by an immense amount of work by our medical laboratory men, there is beginning a new dawn in the understanding of this most important food product. The rôle of the various bacteria, however, is but little understood. The large percentage of bacteria found in milk are the so-called lactic acid forming group. It is quite generally believed that the products of decomposition produced by these micro-organisms are not harmful to man, but on the contrary, are beneficial. If this be true, why all this agitation for a milk with a low bacteria count? This is explained by the fact that our best means of knowing the past history of a given sample of milk is determined by the bacterial content. A high bacteria count must mean one of three things: milk that is either a dirty milk, an old milk or a milk that has been kept at a relatively high temperature. The temperature at which a milk is held for any considerable time very largely governs the type of the bacterial content; that is, a milk held at body temperature gives the best culture media for those contaminated by organisms which came from the cow or from the milkers, while milk held at room temperature will best develop the bacteria found in the food or dusty air. Thus it is found that milk held at a given temperature will, with the development of a high bacteria count tend to a monotype content, as in buttermilk, where there are usually found but two or three varieties of the lactic acid forming group.

Bacteria in milk develop best between the temperatures 70 and 100° F. They do not grow at a temperature but slightly above this and they cease to grow at about 40° F. The bacterial contamination in milk comes from the cow, as the falling of hairs, droppings, and dirt in the milk from the body of the cow; dirt and dust, cobwebs, etc., from the barn and dust in the air; to this the factor of the milker must be added, and here is found one of the very important elements.

*Reprinted from the Illinois Medical Journal, January, 1913.

Whether the milker is clean or not decides very largely whether there be contamination that is harmful to man or not.

Ordinary commercial milk as sold in Chicago is classified under two headings known as "milk bottled in the country" and "can" milk. With the first class the farmer delivers his milk to the factory where it is weighed and, in many of them, the cans are washed and placed over live steam before being returned to the owner; for this milk the farmer is paid a graded scale ranging from \$1.00 to \$1.90 a hundred pounds, or forty-six quarts. The "can" milk is shipped to Chicago and is picked up at the railway depots by the distributor; for this milk a slightly higher price is paid to include freight and other overhead charges. The collection of these accounts can be insured for two cents a can by certain brokerage firms. A very large proportion of Chicago's milk-supply is produced in northern Illinois and southern Wisconsin. The Northwestern and St. Paul roads bring in more than 65 per cent of the total, and a much larger percentage of the bottled milk. McHenry and Kane counties are the third and fourth milk producing counties in the United States.

When the milk is brought to the factory the milk is first run through a so-called clarifier; in this process the larger pieces of dirt, hair, etc., are sifted out. This may be a salutary effect from the distributor's point of view, but in this process the clumps of bacteria are broken up and there is an apparent increase in the bacterial count. The milk is then run through the so-called pasteurizing process; these are practically all "flash" method pasteurizers, and the milk is supposed to be heated momentarily to 160° F. That there is a very wide difference of opinion in regard to this question of flash method pasteurization may be learned by the reading of two articles in the *Jour. A. M. A.*; one by Miller and Capps, showing the inefficiency of the pasteurization by a plant at Batavia and a later article by Heinemann in which he considers the pasteurization at said plant efficient, though the records on the machine show a much lower temperature than 160° F. There is today but a very limited number of medical men who are willing to stand sponsors for this sort of a "pasteurization." The question as to the advisability or non-advisability of pasteurization is not under discussion. It is this farce of running milk through a machine and labeling it pasteurized, thus giving the laity a sense of false security that is so strongly objected to.

During the summer a new angle of the milk game was brought to my attention, one that I had never heard of before. In conversation with the superintendent of one of these factories, he stated that

"last winter was a very bad one for the dairyman. Because of the oversupply of milk it was necessary to put the milk in cold storage until a market could be made for it." So that when one asks how old is the milk that is delivered in Chicago, the best answer is "how old was Ann?"

It may be interesting to know that the average bacterial count made by the Chicago Health Department of all pasteurized milk from August 1 to December 30, 1909, according to Whittaker, was 944,000.

Commercial pasteurization has proven to be inefficient up to the present time so that where one desires a pasteurized milk, it is necessary to pasteurize in the home.

The Chicago Medical Society Milk Commission was organized in February, 1910. At that time there were four farms selling milk supposedly of a grade equal to certified milk; of these three applied for certification; on inspection only one of these was found to be of a standard that could be accepted. By May the other farms had put in improvements such as entitled them to certification. Today we are certifying to the product of thirteen farms: Edgewood, Pewaukee Lake, Wis.; Arcady, Lake Forest; Sedgeley, Hinsdale; Park, Wern and Pleasant Valley, Waukesha; Brookhill, Genesee depot; Hawthorne, Hartwood, Wakefield and Otis, Barrington.

The Chicago Medical Society Milk Commission certifies to milk of varying fat content; from Holstein cows with a fat ranging from 3.50 to 3.75; from Brown Swiss and mixed herds averaging 4 per cent, and from Guernsey herds with a fat range of 5 to 5.50. The herds have been tested with tuberculin this year by the United States Department of Agriculture and all reactors removed. The bacterial content has been extremely satisfactory. Eighty-two per cent of samples of milk examined had a content of less than 5,000 per cc., while some were as low as 100, 200 and 300, and many of 500 and 600.

What is certified milk? It is a milk originally designed for infants and invalids; it is produced under a contract with a milk commission of a county medical society; it is milk with which every precaution has been taken to insure freshness, cleanliness and wholesomeness. The Chicago Medical Society Milk Commission requires that it be drawn from tuberculin tested cows, which show no signs of ill health; cows that have been cleaned with brush twice a day; whose flanks and udders are washed immediately before milking. It is milked into small topped milking pails with gauze strainers; all utensils with which the milk comes in contact must be thoroughly cleaned and sterilized before each milking. The employees handling the milk

shall be healthy; must wear clean white milking suits at milking time; they must wash their hands before milking each cow. The food given the herd must be such as meets the approval of the commission.

The milk is examined chemically and microscopically each week. The farms are inspected each month or oftener. The United States government veterinary experts make examination each month.

The milk is removed from the barn as soon as milked; it is immediately cooled and bottled; all the milk is then immediately packed in cases filled with ice and the temperature thus maintained at about 40° F. until delivered to the consumer.

Certified milk retails for fifteen cents per quart. The extra price is all expended in the extra care and safeguards to the milk. The percentage of profit is less in certified than in commercial milk. It is well to remember that in the increased price of certified milk that the increase in quality far exceeds the extra price. In purchasing most foodstuffs quality is usually the controlling factor. That this is not also true of milk is simply lack of knowledge on the part of the consumer. There are, however, many reasons for this and to a very large extent it can be traced to the distributor. It is the experience of most commissions that the distributor handles certified milk not because he wants to, but because he must in order to hold his business and as a method to sell his milk for a greater price. Most milk distributors have little sympathy for the movement; their controlling factor is to pay as small a price as possible for any milk and sell it at the highest price possible. Incidentally it might be well to remind one that the farmer receives about 40 per cent of the cost to the consumer of commercial milk and for certified milk the farmer receives over 53 per cent of the consumer's cost. Certified milk is distributed to every part of the city and most of the suburbs.

There has been no influence which has done more to draw the attention of the public to the importance of a pure milk supply than the Association of Medical Milk Commissioners. In the rural districts where one or more farms produce certified milk, there is seen the influence spread out for a bettering of sanitary conditions on all surrounding farms. The production of certified milk has demonstrated the possibility of the production of a clean, safe, raw cows' milk. The commission believes that prevention is better than cure; that milk that is kept clean is better than a half-cooked dirty milk. That the aim must always be for a milk that is produced under sanitary conditions; that so long as the cleaning of dirty milk must be in the hands of untrained men, with percentage of profit as the keynote

for their actions, so long will commercially pasteurized milk be an unsafe food.

The certified milk movement has been and is a medical movement: the medical idea is the controlling factor; the medical profession is responsible for this product; the medical profession for self-defense alone, if for no other reason, should be familiar with certified milk, its production and its uses. The medical profession should know whether it is a good thing or not. If it is a good thing then the profession should be active in its propaganda.

155 NORTH RIDGELAND AVENUE, OAK, PARK, ILL.

THE CHICAGO MEDICAL RECORDER

AND
JOURNAL OF THE MEDICO-LEGAL SOCIETY
Pullman Building, CHICAGO

EDITORIAL BOARD

DR. E. W. ANDREWS	DR. FRANKLIN H. MARTIN.
DR. FRANK T. ANDREWS.	DR. JOSEPH MATTESON.
DR. CHARLES C. BEERY.	DR. FREDERICK MENGE.
DR. R. W. BISHOP.	DR. THOS. J. WATKINS.
DR. JAMES BURRY.	DR. SAMUEL C. PLUMMER.
DR. HENRY T. BYFORD.	DR. ARTHUR R. REYNOLDS.
DR. FRANK CARY.	DR. HOMER M. THOMAS
DR. E. J. DOERING.	DR. H. H. FROTHINGHAM.
DR. JUNIUS C. HOAG.	DR. OTTO L. SCHMIDT.
DR. FRANK S. JOHNSON.	DR. D. A. K. STEELE.

DR. A. CHURCH.

COMMITTEE ON PUBLICATION

E. J. DOERING	A. R. REYNOLDS	HENRY T. BYFORD
---------------	----------------	-----------------

Vol. XXXV. No. 2. NEW SERIES.	PUBLISHED MONTHLY. Chicago, Ill., February 15, 1913.	SINGLE COPIES 20 CTS. \$1 A YEAR IN ADVANCE.
----------------------------------	---	---

Editorial.

GETTING IN LINE WITH THE TIMES.

There are still plenty of cultured people who hardly know what the word "eugenics" means, while many of those who understand the etymology of the term perfectly well are lamentably ignorant of the real aims of the eugenists.

Any intelligent person who takes the pains to ascertain the origin, aims and scope of the eugenic movement can not fail to be profited thereby, as well as interested. The usual attitude of an uninstructed person toward a novel movement is that of carping scepticism. His first impulse is to find something which he can deride. If there is anything in the new doctrine that appears to be difficult of attainment, he is apt to pronounce the whole scheme impossible.

Recently at a banquet where uplift movements were being discussed, an eloquent prelate who admitted a mild interest in eugenics, stated that the spontaneity of feeling and action that brought together

two loving hearts was to him something beautiful to contemplate. A professed eugenist replied that such spontaneity of action frequently led to divorce on the one hand and to the propagation of the mentally and morally unfit on the other; that until the law should forbid the marriage of idiots, the eugenists had a right to look askance at a too unrestrained "spontaneity of action" and that in the case of those who are merely physically unfit for marriage, the eugenists hope to accomplish something by urging parents to teach their children that they should not deliberately debase the human race.

At this same banquet an attorney, with a cranium that looked like a white billiard ball, scoffed at the medical profession, alleging that physicians were no wiser in their choice of helpmates than other people, as evidenced by the peculiarly scrawny and unattractive appearance of their wives at medical conventions. The member of the bar above referred to indulged in other pleasantries at the expense of the medical profession but left the impression upon his auditors that he possessed only hazy ideas regarding eugenics, which after all appeared to him only as an amusing and harmless philosophy with which physicians were wont to beguile their leisure hours. A proper retort would be that the medical profession claims no monopoly in eugenics either by right of discovery or by present ownership; that the physicians are only doing their share in this as in most other uplift movements; that the physicians were hardly foremost in discovering the laws of heredity, but are becoming so well convinced of the importance of these laws that they would like the genial lawyer to know that if his progenitors had only been enlightened as to the laws of heredity their descendant, the attorney, might readily have been the happy possessor of hair as well as brains!

Eugenics is an inspiring and fascinating study! its literature, though not as yet very extensive, rapidly is becoming so; it is replete with human interest and much of it reads like a novel. *THE MEDICAL RECORDER* advises its readers to get into line with the times. Begin by re-reading Darwin and then peruse Galton's autobiography and his other works, which will serve to whet the appetite for the good things that follow.

JUNIUS C. HOAG.

VICE SEGREGATION.

Police authorities as a rule are in favor of the segregation of vice in cities, upon the theory that brothels cannot be prevented, and if they are confined to one limited district they can be more easily

regulated and controlled. The police and others believe that without segregation vice will be a nuisance in residential districts. The police do not view the question from the standpoint of vice prevention. The average police force are not up to that viewpoint but some day they will arrive.

Segregation does not, never did, and never will locate all vice—only vice in its worst and most abandoned form. It permits a degree of unbridled license and debauchery that is ruinous. It furnishes a haven for the girl who has made a misstep and become discouraged. Abandoned women do not get their downward start in a segregated district. If there were no brothels most of such women would be saved to useful pursuits, but once they enter upon a career of license there is practically no hope for them. In vice districts is where men meet their Waterloo. Excited by an evening with companions or with drink they go to the district where it is safe under police protection that does not protect him.

Women are taking more and more interest in public affairs, and when they have a voice in such matters they will be a unit in opposition to brothels under the guise of their being a necessity. Suppose vice does crop up more frequently in residence districts than at present, there it must be circumspect and to be circumspect it must be shorn of drunkenness and noise.

Segregation never did much toward lessening the terrible blight of venereal disease and as a sanitary measure, if for no other reason, commercialized vice must be eradicated.

MEDICAL ADVANCE.

Dr. Charles W. Eliot, emeritus president of Harvard University, in an address to the Harvard Medical School said that "preventive medicine is capable in the future of doing away with poverty and misery."

This statement of the distinguished educator has been commented upon freely and favorably by the daily press of the country, and indicates the trend of thought in this country. The social insurance laws of Germany and the Lloyd-George bill in England are attempts in this line by two great nations, with success as far as it goes in Germany. The movement in some form will be taken up actively in the United States soon and the question for American medical men to consider is whether they will be leaders in the movement and

direct it, or simply be the hired servants of the government with miserably small remuneration as in England. An organization along social service lines has been begun in Chicago and should be encouraged by the profession.

EPILEPTIC COLONY.

For years efforts have been made in Illinois to have the State establish a colony for the care and treatment of those afflicted with epilepsy. Suitable employment in the open air, good food, and good housing in pleasant rural surroundings would do great good to such persons. Most epileptics are capable people except at the time of their paroxysms. Under proper guidance they can be self sustaining. They cannot get steady employment, for nobody wants them. They should be removed from association with children and youths.

The Governor has recommended the problem to the legislature. Every physician should write to his representative in Springfield and urge the cause along.

Book Reviews

PRINCIPLES AND PRACTICE OF OBSTETRICS. By Joseph B. De Lee, A. M., M. D. Professor of Obstetrics at the Northwestern University Medical School. Large Octavo of 1,060 pages, with 913 illustrations, 150 of them in colors. Philadelphia and London: W. B. Saunders Company. 1913. Cloth, \$8.00 net. Half Morocco, \$9.50.

This splendid book must be seen to be appreciated. It is a master work in every respect and will at once take front rank with the standard text-books on obstetrics. The book is divided in four parts: Part I, The Physiology of Pregnancy, Labor and the Puerperium; Part II, The Conduct of Pregnancy, Labor and the Puerperium; Part III, The Pathology of Pregnancy, Labor and the Puerperium; Part IV, Operative Obstetrics.

The author has embodied every scientific truth, has evidently studied all the recent literature and the contributions by the great masters, in short has given us a book representing the obstetric art and science of today. The text is clear and concise, the illustrations are simply splendidly executed and mostly original, many works of

art. The type and paper used are of the very best, and we congratulate both author and publisher in producing so fine a volume. We commend this work most highly to every practitioner in obstetrics, as well as a complete guide and text-book for the student. This volume is an honor to American obstetrics, and to the college and the city with which the author is identified.

PSYCHANALYSIS: ITS THEORIES AND PRACTICAL APPLICATION. By A. A. Brill, Ph. B., M. D. Chief of the Neurological Department of the Bronx Hospital and Dispensary; Clinical Assistant in Psychiatry and Neurology at Columbia University Medical School. Octavo of 337 pages. Philadelphia and London: W. B. Saunders Company. 1912. Cloth, \$3.00 net.

In view of the very great interest in the Freudian theories which now pervades not only the medical profession but the laity, every doctor owes it to himself to be posted upon these matters. To this end the present book furnishes the best means. It might perhaps be supplemented as an introduction by a little book entitled "The Psychology of Insanity," written by Bernard Hart, who points out the mechanism of the Freudian theories perhaps more clearly than our author.

These theories have emphasized in a very positive way the tremendous importance of the sexual activities in human psychology and the significance of many abnormal mental and nervous states in relation to sexual causes. One must feel after investigating the matter that the Freudians carry the matter to an extreme and in many instances satisfy themselves that they have reached the root of all evil when they can uncover the recollection of some slight experience of an unpleasant sexual character. Indeed, when they reach such a fact in the process of their psychanalysis, they seem content to go no further and then with great ingenuity square everything to agree with the hypothesis that in such an episode, which in itself may be apparently very trifling, they have reached the source of all the patient's woes. Having uncovered some such feature, they then are often able to convince the patient that in this affair their disease originated and by giving it its proper value, the patient's mind being relieved, all the untoward and tremendous consequences evaporate.

In reading the book before us, it is suggested that it would be well to begin with the chapter on the Psychology of Every-day Life and then return to the more complicated and significant chapters on

the Psychology of the Neuroses and Psychoses. The most devoted followers of Freud admit that his writings are difficult to understand, that he does not always express himself clearly, that translation therefore seems to be unusually difficult, and this haziness of expression seems to characterize the writings of many of the followers, a defect from which the present author is not entirely free. The coinage of new words by the Freudians is considered as a rather significant evidence of paranoid qualities, which in turn they trace to sexual trauma or similar factor. It might be interesting to know how they explain their own talent in this direction. This is not said in criticism of the present book, which furnishes the best general resume of Freud's methods that is available to the English reader.

ARCHIBALD CHURCH.

THE EUGENICS REVIEW. Published Quarterly by The Eugenics Education Society, Kingsway House, Kingsway, W. C. London, England. Vol. IV., No. 3. October, 1912.

We wish to call attention to "The Eugenics Review," which is published quarterly by the Eugenics Education Society of England, under the presidency of Major Leonard Darwin. The quality of the membership of this society may be gauged by reference to the list of Vice Presidents and Members of the Council which comprises many of the notable names of Great Britain and includes most of the learned professions.

In the October number is found a report of the first International Eugenics Congress, an epitome of whose work is given by Edgar Shuster, M. A., D. Sc. The papers read were classified by him in six groups. In the first group were papers relating to heredity, the foundation stone of eugenics. In the second group are placed papers bearing on selection for parenthood, for it is considered that heredity itself can have little effect upon a population except in conjunction with selective agencies, the most important of which is the variable birth-rate in the different social groups. These considerations lead to a secondary question, namely: Is the differential nature of birth-rate to be classed among the causes tending to bring about racial deterioration or the reverse? In other words do those sections of society in which the birth-rate is lowest possess an innate and inheritable superiority, mentally and physically, over those in which it is highest? Answering this question in somewhat contradictory ways are three papers dealing with the qualities of different social classes.

An allied problem is to determine whether the limitation of the size of families affects the average quality of the children by increasing the relative number of the earlier born (first born, second born, etc.) who may be superior or inferior to those born later? Two other selective agencies were discussed at the Congress, namely war, including therewith the necessary preparations for it, and the practice of mid-wifery.

In the third group are considered environmental causes acting upon children through their parents. In the fourth class are found contributions of history and anthropology. In the fifth group are papers relating to social control, among which appear two papers bearing on eugenic legislation in the United States. In the sixth group there are papers on the prophylaxis of syphilis and the taxation of alcoholic beverages according to their percentage of alcohol.

In this copy of the *Eugenics Review* are also to be found reviews of recent eugenics publications and a report of the eugenics discussion held at Cleveland last year, during the session of the National Conference of Charities and Correction.

To all who are interested in eugenics and desire to keep themselves posted on what is being accomplished along these lines, the *MEDICAL RECORDER* recommends the *Eugenic Review* as a most important guide.

THE LABYRINTH. An Aid to the Study of Inflammations of the Internal Ear. By Alfred Braun, M. D., and Isidore Friesner, M. D. With Fifty Figures in the Text and Thirty-Four Half Tones on Thirty-Two Plates. New York: Rebman Company.

It is with much gratification that any new interest in ear diseases is observed in medical literature. The work before us is particularly valuable in that it takes up a large group of symptoms which are commonly misunderstood and misinterpreted. The very recent recognition of inflammatory disturbances of the labyrinth, the necessity of not only diagnosing them as such but of diagnosing their variety makes the work timely and important.

It is well arranged and very clearly written. The anatomy and physiology of the organs are set forth with sufficient detail, followed by a clear chapter on methods of examination, then the pathology of inflammation of the labyrinth, with chapters on symptoms of labyrinthitis and the various methods and operations applicable in its treatment. The authors are distinctly positive in their directions and

this positiveness seems to be the outgrowth of a sufficient amount of personal experience. One is particularly struck with their dictum that in every case of chronic suppuration of the middle ear it is absolutely imperative to test the labyrinthine functions before doing a radical mastoid, and they clearly point out that the protective wall set up by inflammatory process is too often broken down by misdirected mastoid operations, with immediate involvement of meninges and brain,—a sequence which is only too frequently seen in the hospital and private work of otologists.

DIET AND HYGIENE IN DISEASES OF THE SKIN. By L. Duncan Bulkley, A. M., M. D., Physician to the New York Skin and Cancer Hospital; Consulting Physician to the New York Hospital; Consulting Dermatologist to Randall's Island Hospital, etc., etc. New York: Paul B. Hoeber. 1913. Price, \$2.00 net.

This book deals with a subject altogether neglected in too many instances, i. e., the relation of diet to skin diseases. The talented author in a series of lectures gives us his views on diet. He endorses Fletcherism, counsels the utmost care and attention to diet and hygiene in diseases of the skin, describes the effects of different articles of food, specializes the diet in eczema, acne, etc., dwells on the importance of watching the bowels, sleep, rest, exercise, occupation, etc., and finally concludes with a lecture on especial diet, with samples of diet tables, menus for ten days, vegetarian diet, mixed diet and table of nitrogenous food, with fuel values. The book is full of good sound advice and common sense, and we cordially endorse the author's views in all particulars and earnestly recommend this book to every practitioner as well as specialist in dermatology.

MEDICAL MEN AND THE LAW. A Modern Treatise on the Legal Rights, Duties and Liabilities of Physicians and Surgeons. By Hugh Emmett Culbertson, Esq., member of the Ohio and New York Bars; Contributing Editor to many Legal Publications. Octavo, 325 pages. Cloth, \$3.00 net. Lea & Febiger, Publishers, Philadelphia and New York, 1913.

This book contains an immense amount of information of value to both physicians and surgeons, especially the latter. It contains the decisions of the courts of last resort on all matters important to the medical man, cites interesting cases and gives in plain language all

legal points of interest to the practising physician, be he a general practitioner, physician or surgeon. We will quote a few of the contents: who may practice medicine and surgery; what constitutes practising medicine or surgery; relation of physician to patient; compensation; malpractice or negligence; criminal liability of physicians and surgeons; physicians and surgeons as witnesses; right to protect professional reputation; validity of contract restricting exercise of profession; wills. We cordially commend this book, and as a matter of fact every physician should have a copy in his library for his own self-protection. Knowledge of his legal rights is essential.

SAFEGUARDING THE SPECIAL SENSES. By Henry O. Reik, M. D., Formerly Assistant in Ophthalmology and Otology in the Johns Hopkins University and Surgeon in the Baltimore Eye, Ear and Throat Hospital, Baltimore, Maryland. Illustrated. Philadelphia: F. A. Davis Company. 1912. Price, 75c net.

A very satisfactory book for the instruction of the laity. It teaches quite enough to enable intelligent parents to understand the nature of the ordinary diseases of the eyes, ears, nose and throat, and when to send for the physician. In fact, the book gives no treatment, but rather teaches the need of being able to recognize the various affections mentioned in order to obtain proper medical advice. We cordially commend it to the notice of the profession, as just such a book as this is needed.

GOLDEN RULES OF SURGERY. Especially Intended for Students, General Practitioners, and Beginners in Surgery. By Augustus Charles Bernays, A. M., M. D., Hdlbg., M. C. R. S., Eng. Second Edition. Revised and Rewritten by William Thomas Coughlin, M. D. St. Louis: C. V. Mosby Company. 1913. Price, \$2.25.

We repeat the favorable opinion we gave in our review of the first edition. These rules are indeed of golden value and should be most carefully studied by the young surgeon as well as the general practitioner. The whole range of surgery is well covered, and in a most concise manner the fundamental truths of surgery are instilled into the reader. This edition has been revised and in fact rewritten by Dr. Coughlin, so as to bring the subject matter fully up to date. This book must be seen to be appreciated, and we know that everyone after reading one page or two will want a copy.

THE SURGICAL CLINIC OF JOHN B. MURPHY, M. D., at Mercy Hospital, Chicago. Volume I. Number VI. (December.) Octavo of 153 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1912. Published Bi-monthly. Price per year: Paper, \$8.00. Cloth, \$12.00.

This issue opens with a lecture upon carcinoma of the breast by Dr. Murphy, with remarks upon the subject by Dr. Bastianelli, of Rome. Dr. Murphy emphasized the statement that he has for some years discarded the Halstead operation, which was for so long regarded as an essential of complete removal, and now only removes the pectoral when in the course of the operation it develops that the carcinoma has penetrated the posterior mammary capsule and through into the muscle. Professor Bastianelli, who is recognized as one of the world's greatest authorities upon the subject, gave a very clear and scientific exposition of the present state of our knowledge of the subject and just how much we can promise in the way of relief. The second lecture, along the same line, is by Professor Albert Caan upon the treatment of malignancy by radio-active substances. Professor Caan, who comes from the Cancer Institute at Heidelberg, gave a resume of the recent investigation into the subject and the latest word upon the treatment by radio-active substances.

Following these are lectures upon pelvic infection, gonorrheal arthritis of knee, ankylosis of elbow, fracture of patella, ununited fracture of femur, fracture of internal semilunar cartilage, splitting fracture of lower end of tibia, ununited fracture of humerus, tenoplasty for obstetric palsy, ankylosis of temporomaxillary joints, and comments on cases previously operated on.

From this list one must mention as being of more than usual interest because of the exhaustive, thorough, detailed treatment of the subjects as well as their vast importance to the profession, the lectures upon pelvic infections and tenoplasty for obstetric palsy.

News Items

For Rent.—Office hours in very desirable rooms in physicians' suite. Room 705, 15 East Washington street, Venetian building, Chicago.

For Rent.—Office hours in a newly finished and furnished suite. Large or small room. One large consultation room with operating room (light or dark) and rest room adjoining for morning hours. Particularly desirable. Attendant furnished. Rent very moderate. Dr. John L. Porter, 7 West Madison street, suite 907.

Wanted.—A physician to do clerical work in the medical director's office of a life insurance company. Must be a rapid typist. Services to begin in late spring. Address "B," care of Medical Recorder Publishing Company, 804 Pullman building, Chicago.

Personal.—Dr. Frederick A. Speik, formerly of this city, has entirely recovered his health and has resumed practice. He is now associated with Dr. Norman Bridge, with offices in the Auditorium building, Los Angeles, California.

Dr. Edwin Pynchon has resigned from the Bennett Medical College as Professor of Rhinology and Laryngology.

The reappointment of Brigadier-General George H. Torney, M. C., U. S. Army, as surgeon-general, was confirmed by the senate on January 11.

Dr. S. Weir Mitchell of Philadelphia will deliver an address on "The Profession of Medicine in the War of the Rebellion," before the Physicians' Club of Chicago, February 25.

Dr. and Mrs. G. T. von Colditz have returned from Europe.

Dr. George B. Young has been elected treasurer of the Chicago Public Service League.

Dr. S. C. Stanton has been appointed colonel, surgeon-general, M. C., Ill. N. G., succeeding Brigadier-General Charles Adams, retired at his own request.

Wanted.—Young medical student or doctor to correspond with us about a new way of money and friends making in the health and efficiency promoting line. Address George A. Schmidt (IT) Co., 236-238 North avenue, Chicago. Established 1875.

Dr. Frank H. Blackmarr desires to announce his return to office and hospital practice of Electro-Therapeutics, X-Ray Therapy, Radium Therapy, X-Ray Laboratory for rapid work. Office hours: 935 Marshall Field building, 8:30 a. m. to 9:30 a. m., telephone Private Exchange 1; 551 E. 47th street, 11 a. m. to 3 p. m., telephone Oakland 1719.

New English Hospital.—A new hospital for women only, managed and officered by women; is about to be built in South London. The idea is to fill the gap between ordinary hospitals and expensive nursing homes, so that patients from the middle classes who are debarred from hospital treatment and are unable to pay consultation fees may yet have the benefit of expert advice by paying small sums according to their

means. The charge for a bed in a private ward will be graduated from one to three guineas per week. In the consultative department any patient can consult the honorary staff on the production of a card from her own doctor. A free out-patient department for women of the poorer classes will also be opened shortly.

To the Editor: I am undertaking an exhaustive research into the pathology, etiology and dieto-therapy of Diabetes Mellitus. I am very anxious to hear from every physician in the United States who has a case under treatment or who has had any experience in the treatment of this malady. Von Noorden says, "The best treatment for the diabetic is the food containing the greatest amount of starch which the patient can bear without harm." If any physician who reads this has similar or contrary experience, and would take the trouble to write me, I would esteem it a special privilege to hear from him, if only a postal card. Kindly address, William E. Fitch, M. D., 355 West 145th Street, New York City.

A New Work on the History of Medicine.—W. B. Saunders Company, publishers, of Philadelphia and London, have in active preparation a work on the History of Medicine by Dr. Fielding H. Garrison, principal assistant librarian, surgeon-general's office, and editor of the *Index Medicus*. Dr. Garrison's twenty years' experience in medical bibliography, and the unusual advantages derived from his close touch with the rich stores of the surgeon-general's office, fit him most admirably for such a work as this.

His book will present the history of medicine from the earliest ancient and primitive times; on through Egyptian medicine, Sumerian and Oriental medicine, Greek medicine, the Byzantine period, the Mohammedan and Jewish periods, the Mediaeval period, the period of the Renaissance, the revival of learning and the reformation, the seventeenth century (the age of individual scientific endeavor), the eighteenth century (the age of theories and systems), the nineteenth century (the beginning of organized advancement of science), the twentieth century (the beginning of organized preventive medicine). There will also be appendices covering medical chronology, histories of important diseases, histories of drugs and therapeutic procedure, histories of important surgical operations, and bibliographic notes for collateral reading.

Dr. Garrison's work will undoubtedly be a valuable book to every medical man. In this one volume he will get a complete history of medicine from its earliest times, presented in a concise form.

The illustrations are intended to stimulate the reader's interest in the picturesque aspects of medicine and in the personalities of its great leaders. The biographies will be confined to the most important facts and to interesting personal traits. The original bibliographic references to the important discoveries, operations and experiments will be given. Each period is to be followed by a brief survey of its social and cultural phases. Altogether it promises to be a most important addition to medical literature. We await its publication with much interest.

Banquet Given Dr. Truman W. Brophy.—Gifts and compliments from many nations formed the most important part of the testimonial

banquet given Dr. Truman William Brophy at the Hotel La Salle February 1, by the Chicago Dental Society.

The distinguished Chicago odontologist was given a bronze bust of Abraham Lincoln, made from life by Volk in 1860, on behalf of the American Dental Society of Europe; an antique silver tray from the International Dental Federation; a bust of Dr. Chapin A. Harris, who established the first dental college at Baltimore in 1839, from Dr. Vincenzo Guerini of Naples, through Dr. B. Holly Smith of Baltimore; a chest of silver from New York friends; twenty-one silver plates from friends in many cities of the United States and Canada, and a chest of flat silver from the Chicago Odontological Society.

Dr. James H. Prothero, president of the Chicago Dental Society, was chairman, and Dr. Arthur D. Black toastmaster. Those who responded to toasts included Dr. Charles N. Johnson of Chicago, Dr. Edwin T. Darby of Philadelphia, Dr. Newell S. Jenkins of Paris, Dr. W. A. Evans of Chicago, Dr. George F. Bush of Winnipeg, and the Rev. W. M. Lawrence of Hamilton, N. Y.

Dr. Woods Hutchinson.—"One of the most recent of the sensational declarations that are made from time to time by Dr. Woods Hutchinson, is to the effect that so-called "baths" are, as a rule, humbugs.

In the Thursday issue of *The Evening News*, comment was made on that phase of the doctor's philosophy.

Dr. James A. Egan, secretary of the state board of health, took exceptions to the editorial, and he was asked to give his view of Dr. Woods Hutchinson's opinion that "One good dose of epsom salts is worth more than a couple of gallons of the most potent water known."

This is what Dr. Egan has to say:

"I comply with the request of *The Evening News* to comment on the remarks of Dr. Woods Hutchinson, anent mineral waters and baths, as published in last night's issue, solely in order that I may render some service to the sick and suffering, from whom Dr. Hutchinson would snatch means of relief. Were it not for this, I should not devote any attention to this physician, the import of whose fancies and humors are appreciated by practicing physicians of the United States, of whom, by the way, Dr. Hutchinson is not one.

"Dr. Hutchinson's declarations do a grave injustice to the owners and lessees of excellent mineral springs at home and abroad, and may do great harm to the sick by influencing them from seeking relief from ailments which might be cured, or alleviated, by the very springs and baths which Dr. Hutchinson decries.

"There are springs in Europe, as in the United States, which have remarkable medicinal properties. There are baths, too, of water and other substances, which exercise great curative influences in cases of rheumatism. These facts are within the ken of practicing physicians. That they are not known to Dr. Hutchinson is to be regretted, but the people of Illinois should not be made to suffer because of this."

"He thinks too much" said Caesar of Cassius; "he writes too much" is what many members of the medical fraternity say of Dr. Woods Hutchinson.—*The Springfield Evening News*.

Editor Chicago Medical Recorder. Dear Sir: You have seen the attack which has been made upon our motives in marketing the phylacogens, and upon the value of the products. That there is not a vestige of truth or warrant in the attack will be made very clear if you will glance at the "Laboratory Data," copy of which we are mailing to you under separate cover this day. These "Laboratory Data" were sent out by us in April, 1912, to physicians who were assisting us, in different parts of the United States, to ascertain, in the hospital and at the bedside, the true clinical value of the Phylacogens. No intelligent man can read these "Data" and resist the conviction that they were prepared in a spirit of the greatest candor for the benefit of the physicians who were at work on the problem.

At the instance of Doctor Schafer we first began our independent investigation of his Phylacogens in January, 1911. It was not until March 1, 1912—fourteen months later—that we sold so much as a single dose. During that period over 40,000 packages were prepared and placed free of charge in the hands of our clinical co-workers. Since we began the marketing of the Phylacogens for rheumatism, gonorrheal rheumatism, erysipelas, and pneumonia, we have, of course, continued our experimental work in the laboratory, in the hospital and at the bedside, at vast cost to ourselves.

In the attack to which we refer, not a word is said about the two years of time and labor (January, 1911—February, 1913) devoted by us, by our bacteriologists, by our Department of Experimental Medicine, and by the hundreds of medical practitioners all over the United States to a searching investigation of every phase of the Phylacogens. Not a word is said about the hundreds of reputable physicians who have sent us between 4,000 and 5,000 reports of cases treated with Phylacogen; not a word about the thirty-four papers which have appeared in the medical press; not a word about the thirty-one meetings of medical societies before which papers have been read and the Phylacogens discussed; not a word about the one hundred thousand dollars which we have spent in an earnest, single-minded endeavor to ascertain and proclaim the truth; not a word about these forty-five pages of "Laboratory Data" which we sent out among our co-workers.

Our advertisements in the pharmaceutical journals are reproduced and made to represent Parke, Davis & Co. as caring not a malediction for the physician or the patient—as interested only in the shameful fruits of betraying the physician's confidence. Pray, study these advertisements and judge for yourself. It is perfectly true that we are advertising our Phylacogens extensively, that our advertising, supported by the remarkable merit of the Phylacogens, will create a market, and that the druggists should place the preparation in stock. What is there wicked in all this? Is this encouraging self-medication by the laity or counter-prescribing by the druggist? Have you ever heard of any druggist injecting a dose of Phylacogen?

Is there any possible question in your mind, Doctor, that for the testing of new medicinal agents we have the most complete and the best laboratory facilities that can be found anywhere in America? As for clinical work, our Department of Experimental Medicine enjoys the

support and co-operation of not less than 3,200 of the best physicians in the country, with whom we are in constant correspondence, and in almost daily contact through the twenty-three representatives of this department—physicians on whom we depend for the clinical proving of every new preparation before we place it on the market.

We close with a brief extract from a letter received on the 3rd inst. from one of the most prominent medical editors in the United States:

"I have just read the mean attack on the Phylacogens in the current issue of the Journal of the A. M. A. It fairly makes my blood boil, for I have had occasion to know a good deal about the great care your esteemed firm have taken to be sure of their position before offering a dollar's worth of these products to the market. If ever a firm pursued clean, ethical and scientific methods in developing a remedy for professional use, Parke, Davis & Co. have in the present instance."—Very truly yours, Parke, Davis & Co., Frank G. Ryan, President.

Panama.—On March 1, a special excursion of the Illinois State Medical Association leaves Chicago and St. Louis for a trip to Panama. They go via Birmingham, Jacksonville and Knight's Bay, taking in the wonderful railway built by Mr. Flakler along the string of keys from Miami south to Key West.

A railroad built through the sea—the restless waves of the Atlantic on the one side, the emerald waters of the lagoons on the other; the massed and matted verdure of the keys strung at intervals like living beads along the route.

What a chance! From the still frozen North, with its ice and snow and slush, its cold and colds, discomforts and heavy work; to the Flowery Land, the palms and poincianas, soursops and sapotillas, the wavy fronds of the banana and the growing grape fruit, pineapple, tamarind and cherimoya. Do you know that along the Indian river grows an orange so fragile that not one ever is shipped to the North, and yet nowhere on the globe does such a perfection of an orange grow? You must eat it from the tree. So with the fresh, ripe fig—pick it in the morning and before noon it is uneatable.

The placid waters of the Gulf; the channel, on one side of which stretches our restless ward, Cuba, on the other Yucatan, with her ancient ruins that rival those of Egypt in immensity, Greece in beauty, Babylon in antiquity.

The Caribbean, which saw her waves splashed by the canoe of the man-eating Carib, the buccaneers of Morgan and the treasure galleons of Spain, where Cortes, Pizarro, Alvarado and Balboa led the adventurous youth of Spain; where she exchanged her life blood, emptied her cities and drained her fields of men to gather the wealth of Mexico, Guatemala and Peru. To the land of the Aztec, the Maya and the Inca. To the teeming tropics, their lush vegetation, their swarming animal and insect and plant life; their priceless woods, dyes and drugs; their antlike swarms of humans; the tiger and the alligator, the electric eel and the fish that climbs trees, the tapir and the sapajou; the gorgeous birds and the hugest of serpents; the land of the mantilla and the guitar.

Wouldn't you like to go? Don't you want to see the greatest engineering feat mankind has ever accomplished—and that by our own countrymen? Made possible by the great American doctor, who has first conquered the demons that dance on the Equator? To see the Gatun Dam, Col. Goethals, Dr. Gorgas, the Culebra Cut, the hugest locks that man has ever devised? The channel through which the world's commerce will soon be passing? The great cut that unites West and East, that brings Asia and Europe into neighborhood, and realizes the Columbian quest of a passage to India? The big American dredges that eat up the mountain, where the little French engines pecked a bit?

Do you want to go?

Why don't you?

Now begin to squirm! Too busy; too poor; too old; too lazy. Too—the rest of it.

Bosh! You are not so busy; you can well afford to leave something for the boys to do. Your patients will think all the more of you after losing you for a few weeks. If they don't you should be ashamed to own it.

Too poor? Why should you deny yourself, to pile up trash to ruin your boys?

Are they idiots? Then if they are not smart enough to make their living, let them starve a bit. Good excuse to collect a little more energetically. Tell your best patients what you want to do and they will make up a party and pay your expenses to go as their medical adviser.

Too old? We should smile! When are you going to get your share of the fun you are entitled to if you don't soon begin? The world owes you a lot of pleasure you have missed.

Too lazy? Now we are getting hot—there's the rub. You have been running so long in one groove that you do not like to exert yourself and get out. In a rut. Like the old cart horse that is only held up by the shafts.

Benjamin Franklin advised to spend half of one's income, and save half. Wise old man. He knew that saving was only a virtue when it had an adequate object back of it. But he knew how the saving habit grows on one, and how a man in the pleasure of seeing his fortune grow, loses the power of enjoying what money may bring, all that makes it of any value whatsoever. For as chemicals only become active in solution, so money is only valuable when it is spent. So he advised to spend half.

The long, weary years behind you. The drudging work, the poor pay, the lack of appreciation, the dubbing through slush and mud, the lost sleep, the pleasures foregone, the opportunities for meeting the men whose acquaintance would have brought an uplift and an awakening, the petty routine that has usurped so many of the nobler things life offers.

Come out of your shell. Loosen up. Come with us to Panama. Bring her with you.

William Francis Waugh, M. D.

CR 300 1715
1715

THE CHICAGO MEDICAL RECORDER

MARCH, 1913.

Original Articles.

THOMAS YOUNG, M. D., F. R. S., 1773-1829.
A BIOGRAPHIC AND PEDAGOGIC STUDY.

By BAYARD HOLMES, M. D.

Our profession has been notably careless of the traditions of its past. We have many schools of medicine, but few teachers of the history of medicine. We have many medical journals but few annuals of medical history. We have the names of exploiters of pills and powders on our lips every day, but we fail to recognize the great explorers and adventurers in science and in research and the successful aviators for mental supremacy. The names of those physicians that one generation applauds over a continent or over the whole civilized world as great healers or fearless surgeons, we who inherit all of the wealth of honor and respect which their superior brilliancy secured, forget while we sordidly utilize their achievements.

Rich as our profession has been in great minds and scientific consciences, no life and no work stands out more permanently, more substantially and more honorably than that of Thomas Young. He was born on the 13th day of June, 1773, in Milverton, Somerset, some thirteen miles from Bridgeport, England. This is a wonderful old town and long noted as the source of one "John of Milverton," who brought a sharp attack upon the great reformer Wycliffe.

Thomas Young's father was a Quaker, and his mother, a Quakeress, was the niece of the celebrated Dr. Brocklesby of London. When a small boy two years of age Thomas Young could read English, but a few years later he was quite sick. It is uncertain what disease he suffered or how long he was laid up and kept out of school. Certain it is that he was obliged to leave Bristol, where his education was begun, and after a considerable interval he went to the Academy at

Compton in Dorsetshire, which was kept by a very remarkable schoolmaster and scholar, Mr. Thompson, from whom Thomas Young learned to read the Hebrew Bible. He was thoroughly taught mathematics and was fairly well acquainted with Greek, Latin, French, Italian, Syriac, Persian and Arabic. From Martin's description, he made himself a microscope and constructed many other mathematical and mechanical machines. His love of languages was intense, his industry untiring and his undertakings almost limitless. What wonder that he soon broke down again and was obliged to leave school, take a tutorship and rest for awhile.

He tutored David Barclay of Youngsberg and while in this position he devoted much time and study to astronomy. He made many Latin notes at this time and acquired great facility in Latin composition.

In Peacock's life of Young there is a large amount of detail descriptive of Young's mental activity which seems to be impossible, at least to any of our modern young men. The amount, the thoroughness and the variety of Young's study at this time are appalling.

It was here, at Barclay's residence in Herthfordshire, that Thomas Young studied demotic, which soon led to his dictionary of demotic Egyptian. This unusual adventure necessitated a very thorough and extensive reading of Coptic. While this work was going on he first became acquainted with his mother's uncles in London, one a lawyer and one a doctor. Dr. Brocklesby was much interested in his distant nephew and succeeded in leading him into the study of medicine, which profession he greatly honored in his subsequent writings.

He studied the action of prisms on light, and in 1793, wrote an essay which was presented to the Royal Society through Dr. Brocklesby, entitled "Observations on Vision." This essay attracted so much attention that he was elected to fellowship in this Society in his twentieth year! This was also the year in which Hunter died and that very day he wrote:

"Hei Mihi! quantum Praesidium
Ansonia, et quantum tu perdis Jule."

He then took two courses of lectures under Black and Monroe and went to Göttingen where he graduated in 1795 with a thesis entitled "*De corporis humani viribus conservatricibus.*" He boasted in a letter to his mother while rooming at the house of Frau Professor Arnemann, that he was within a hundred yards of the second largest

library in Europe. His Quaker conscience troubled him greatly in anticipation of his oath of graduation. When, however, he made known to the astonished Germans his religious scruples, they good-naturedly allowed him "to affirm instead of swear on the Book."

From Göttingen he went to Leipzig and Dresden and then came home by way of Hamburg and took his degree at Cambridge at the instance of his uncle and became a fellow of the Royal College of Physicians in 1808.

While at Cambridge in 1801, his uncle, Dr. Brocklesby, died and left Thomas Young his heir, and an estate valued at £10,000. He took quarters in Wellbeck street at once, intending to devote himself to practice. However, within a year he went to the continent and traveled with the Duke of Richmond and Lord George Lennox, meeting many savants and scholars in France who proved of great service to him afterwards. On returning to London he became Professor of Experimental Philosophy in the Royal Institute which was founded by Benjamin Thompson, the American, better known as Count Rumford. He became at the same time Foreign Secretary of the Royal Society of Great Britain.

The practice which he hoped to establish never pursued him or took much of his time. His mental activity was consuming.

Shortly after 1804 he married Miss Eliza Maxwell, who made him a devoted wife, but bore him no children.

One of his biographers goes into a bit of generalization in these words: "A lecturer in the Royal Institution at the beginning of the century was not likely to have been a successful practitioner of medicine. It has never been the fact that any such man, however skilled in the art of physic, could become a popular physician. *The world never likes a scientific doctor*; and Harvey, himself, although he discovered the circulation of the blood, was one of the last who would be consulted practically, since he was of little moment,—nay, even a matter of exception,—to his less learned brethren. Young was no exception; he was a man of science which was quite enough for his discomfiture in practice. Still, he endeavored to practice and at the same time continue his discoveries as Humphrey Davy did and others of his compeers."

In the preface to one of his Egyptian books he regretted that public opinion was strongly against a practicing physician who attained distinction in any field except medicine, and it is evident that his financial independence alone made it possible for him to continue his scientific, literary and philosophical work.

His study of optics led to his undulatory theory of light, which his better known friend, Arago, declared was enough to make his name immortal. It would have commanded a Nobel prize if such recognition had been given then. He worked incessantly in natural history and astronomy. He was appointed secretary and commissioner of the Royal Commission on Weights and Measures, and acted with Dr. Wollaston, Dr. Charles Gilbert, Sir Joseph Banks and Sir George Clark. He was also appointed by the Board of Admiralty, Superintendent of the Nautical Almanac, a position he held to the end of his life. He made the first instrument for estimating the number of corpuscles in the blood. It was called by him an eriometer. He wrote a book entitled "Medical Literature and Practical Nosology," which was one of the first publications audacious enough to break the traditions of medieval medicine and work out a rational system of nomenclature. His Essay on Consumption was extremely valuable, and considering that it was written many years before the stethoscope was invented, it is still a remarkable book.

Probably the greatest stroke of the genius of Thomas Young was his decipherment of the Egyptian hieroglyphics, for which his linguistic studies had prepared him. This may not be the most valuable economically, of his contributions to human knowledge and power, but it was certainly the most romantic and astounding. Not a word of hieroglyphics had been read for more than 1,800 years when Thomas Young made his brilliant deductions, that opened up to us an incomparable history written by a people who had maintained a civilization and culture on the banks of the Nile for four thousand years before Homer.

Nothing in the history of letters can be compared with Thomas Young's decipherment of Hieroglyphics unless it be Sir Henry Rawlinson's readings of the cuneiform inscriptions of Behistun. The value of the work of Thomas Young was never fully realized until the jealousies and national rivalries over the Rosetta Stone had been removed by time.

The Rosetta Stone was discovered when Napoleon undertook certain repairs of the fortification of St. Julien, near Rosetta, not far from Alexandria, near the mouth of the Nile. This stone was covered on one side with inscriptions in three sets of characters. The upper set, much broken away, was in hieroglyphics; the middle portion, far more complete, was in demotic Egyptian; the lower portion, quite complete, was in monumental Greek. The stone later came, in the chances of war, into the possession of the British Troops under Gen-

eral Turner, and was taken by him to England in 1802. It was first placed in the Museum of the Society of Antiquarians, and copies of it were at once made and forwarded to learned societies over the whole world, and one copy was sent to the Philosophical Society of Philadelphia.

During the succeeding seven years the Greek was translated by Rev. Stephen Weston of England, and by Professor Heyne of Göttingen, but absolutely no progress was made in reading either the demotic or the hieroglyphics.

Before the Rosetta stone passed out of the hands of the French, several copies of it were taken on paper and sent to the French Institute. These fell eventually into the hands of Ameilhon, de Sacy and Akerbald. These gentlemen made several suggestions in regard to the demotic, or, as it was called, the enchorial portion. Many of these deductions have subsequently proved correct.

In 1814 Thomas Young began the study of the Rosetta Stone and he translated the demotic portion and made the first suggestions in regard to the significance of the hieroglyphics. He came to the following conclusions:

1. Simple objects among the hieroglyphics are represented by their actual delineation.
2. Many signs were used in a figurative sense only.
3. Many signs could be considered as the pictures of no existing objects.
4. The dual was denoted by doubling a character.
5. An indefinite plurality was represented by three characters of the same kind or by three lines or bars attached to a single character.
6. Units are represented by dashes and tens by round or square arches.
7. Hieroglyphic inscriptions must be read from the direction in which the characters face.
8. Proper names were included in the oval ring or cartouche.
9. The name of Ptolemy alone existed on the Rosetta stone.

These conclusions were of the greatest value in the further decipherment of this stone.

In 1815 he published in *Archæologia*, Vol. 18, a comparison of the translations of the Greek and the demotic texts and the next year he discovered a close relation between the hieroglyphics and the demotic, and he wrote an article on Egypt for the *Encyclopedia Britannica* in which he pointed out the characters that represented p, t, l, m,

y and s, and showed the significance of nearly 200 signs that were not of phonetic value. The subsequent growth of our knowledge of Egyptian literature rests upon these brilliant observations.

Doctor Young was the first to show the relation between the curvature of the cornea and sight and demonstrated astigmatism by actual measurement. He also first pointed out the interference of rays of light of unequal wave lengths in passing through media of different densities or through a slit. These observations were published in the *Philosophical Transactions* of June 19, 1794.

Thomas Young was employed to investigate the proposed introduction of gas into the city of London and his favorable report upon this subject was the beginning of illumination, and set at rest once and for all the mystical fears of its opponents.

He instituted new methods in naval architecture at the request of the Admiralty Board.

Thomas Young published the following works:

"A course of Lectures on Natural Philosophy and the Mechanical Arts," London, 1807, 2 vol. quarto. Republished and edited by Professor Kelland, London, 1845, 2 vol. octavo.

"An Introduction to Medical Literature, including a System of Practical Nosology," 1815, octavo, republished 1823.

"A practical and Historical Treatise on Consumptive Diseases," 1815, octavo.

"Letter of Canova and Memoirs of Visconti on the Elgin Marbles," 1816, octavo. (Translated anonymously).

"Elementary Illustrations of the Celestial Mechanics of Laplace," 1821, octavo.

"An Account of Recent Discoveries in Hieroglyphics and Egyptian Antiquities," 1823, octavo.

"Enchorial Egyptian Dictionary, with Egyptian Grammar, by Henry Tattum," 1830.

A portrait of Young, painted by Sir Thomas Lawrence, is now in the possession of J. H. Gurney of Keswick Hall, Norwich, and a copy was presented to the Royal Society in 1842 and can now be seen at the Burlington House. Another copy is in St. George's Hospital, hanging in the board rooms. A third copy is at Emanuel College, Cambridge, and the fourth copy is now in the possession of A. E. Young. An engraving by George Ralph Ward of Young's portrait appeared in Peacock's *Life of Young* and has been liberally reproduced elsewhere.

Probably no medical man of eminent distinction ever received



of those things for which affluence is principally desired, but on this account I am not the less in love with my profession."

After a relatively short illness Dr. Thomas Young died in London on May 10th, 1829.

In mathematics and physics he stands among Englishmen next to Sir Isaac Newton. In medical science he was a leader toward reason and from tradition, making way for anatomical pathology. In language and philosophy he was the first Englishman of the school of comparative philologists.

He did all things well.

INDEXING CASE HISTORIES AND FILING CURRENT LITERATURE AND REFERENCES.

By DR. H. J. ACHARD, CHICAGO, ILL.

In former times, when the practicing physician was content to leave research to clinicians and to the teachers in medical colleges, and when the possibilities of readily obtaining the results and acquirements of investigation and research were not as excellent as they are now, it was considered sufficient to renew the library occasionally by the purchase of a few new textbooks and perhaps to read a medical journal or two in order to "keep up with the times." Since, however, the *modus operandi* of clinical and experimental investigation has been popularized, so to speak, and since medical students have come to be carefully trained as research workers who, even in the worry and hurry of general practice are not content to take things for granted or to get the latest news once or twice a year at a medical meeting, the publications of such men who are doing original work have multiplied and are no longer being discarded, scrapped or packed in a corner of the bookcase. Not only are text-books used far more than formerly as what they actually are or ought to be, that is as presenting the gist of investigations up to the time of their publication, but contemporary literature, more especially journal literature and monographs are studied far more carefully and are preserved for constant reference. It goes without saying that in addition to the text-books and other bound volumes, and in addition to the medical journals which a physician may buy or subscribe for, a considerable amount of pamphlet literature will accumulate in the course of time in a physician's office or study, which is an incubus if neglected, just as it is productive of much valuable information and assistance if properly studied, indexed and filed.

Many different methods have been used and recommended for the purpose of indexing references and journal articles, and of filing pamphlets. All of them present many inconveniences and imperfections, while most of them are altogether too cumbersome than that the original plan could be carried out with any degree of satisfaction.

From the early and obsolete mode of making scrap books, for which (*horrible dictu!*) the journals were cut to pieces and the clippings pasted in old ledgers or what not [a method which is not only extremely unsatisfactory in its results, but also renders any other material in the mutilated journal files unavailable, but which is nevertheless frequently used to the present day], down to complicated and expensive filing cabinets and index files, physicians' "system"

manufacturers have vied with each other to invent systems and methods that should do justice to all requirements and be as free as possible from objections.

One of the latest methods for this purpose (E. M. Staunton, *Med. Record*, 1912, Nov. 2, p. 804) is based upon the Dewey system in library work, a characteristic of which is the substitution of generic numerals for specific titles in the classification of books. The system proposed for case histories and pamphlets consists principally in marking cardboard boxes with certain hieroglyphics, such as,

"I. Nervous System" (with subdivisions).

11. Hysteria.
12. Neurasthenia, hypochondria.
13. Insanity.
14. Meninges (diseases and injuries of).
15. Spinal cord (diseases and injuries of).
16. Brain (diseases and injuries of).
18. Migraine, epilepsy.

II. Circulatory System (with subdivisions).

III. Respiratory System (with subdivisions).

IV. Alimentary System (with subdivisions), etc.

Case histories are considered and marked with the special numbers; for instance, in a specimen case the history receives the numbers 58 (perineum), 52 (bladder), 45 (gall bladder), 115 (hernia).

When it is now desired to review the history of any given class of cases, all that is necessary is to go through the alphabetically filed histories and take out those which contain the number corresponding to the subject under investigation.

The pasteboard boxes used for the filing of reprints are marked with the proper numbers and are housed in bookcases. The author uses cloth-covered pasteboard boxes 10 inches long, 1½ inches wide and ten inches deep. Each piece of literature, relating to, for instance, diseases of the gall bladder, is given the number 45 and filed in box 45. Goitre literature is filed in box 63, kidney literature in box 51, etc.

If special work is done along any certain line, it becomes of course necessary to subdivide. For instance, the division of kidney diseases (51) is subdivided by the author, as follows:

51. 1—Acute and chronic nephritis.
51. 2—General articles on kidney surgery.
51. 3—Renal and ureteral calculi.
51. 4—Hydronephrosis—pyogenic infections.

- 51. 5—Tuberculosis.
- 51. 6—Movable kidney—traumatism.
- 51. 7—Renal tumors—cystic kidney.
- 51. 8—Diseases and surgery of the ureter.
- 51. 9—X-ray—cystoscopy—functional tests.

The boxes have been found a convenient receptacle for lists, papers, clippings and other memoranda.

While this system is excellently devised and, if carried out and maintained carefully, is undoubtedly productive of much convenience in consulting the literature and other data, it has many drawbacks, which are not inconsiderable. First of all, the one great drawback is that a pamphlet filed under a certain subject may be entirely lost for research along other lines, although it may contain some very important information on various other subjects. Of course this can be remedied by maintaining a detailed system of cross-references, and it is very true that no results can be expected from any system of filing and indexing without a good deal of work. The question is simply whether the maintenance of a filing and indexing system is less than the work necessitated by having to hunt through a stack of literature and pamphlets when in need of a certain bit of information.

I have for some years elaborated and used a system of filing and indexing which is not only the simplest that I have seen and used, but also, and perhaps for that very reason, the most satisfactory one. A brief description of this system may suffice. The paraphernalia required are limited to a plentiful supply of filing cards, 3 x 5 inches, and to a number of paper-covered card boxes 10½ x 7½ x 2½ inches, for which I pay 9 cents a piece in five dozen lots. Each pamphlet, as it is received, is marked with a current number of acquisition and is put into the last available pamphlet box, each of which can house between 20 and 40 different pamphlets according to their thickness. Before filing away the pamphlet is catalogued by author and title, and the title is indexed under two, three or more different headings, as may be desirable. Except for the principal subject card; none of the other subject cards need contain full information, the reference being sufficient if it contains the number of the pamphlet. When the pamphlet is read, such portions of the contents as are of interest are jotted down, under suitable subject headings, on plain index cards with the simple reference to the pamphlet number, and are filed in the Index Rerum. The same is done with important information found either in the text-books or in

current literature, no medical journals ever being clipped. In referring to a text-book, author, title, edition, year of publication and page must of course be given, while in referring to a journal publication, the author, journal (volume), year and page are sufficient.

If in looking through the medical journals I come across an article that is not of present interest, but contains some information which I shall require at some future time, I index it under the subject heading that interests me, and whenever I desire to look up this subject I can find the memorandum in my index to the effect that in such and such a journal there is a communication on this subject. If, however, I desire to work up an article immediately, I take out all the information, on as many cards as may be necessary, and all important papers I find indexed, on anywhere from one to twenty and more index cards, which are then filed in their proper sequence.

The result is that my medical journals are not being mutilated and can be bound when the volumes are completed and preserved in their proper places in the library so that they are available for consultation at any time and that the information which they contain is preserved suitably. Likewise, the pamphlets, reprints, and even such advertising literature as may be of value and interest, are all preserved properly and orderly, and having been catalogued and indexed, the information contained in these pamphlets is available and get-at-able. If I desire to consult the resources of my library on any particular subject, I go first of all to my catalogue and find out what text-books and pamphlets I have on this subject. Then I go to my index and find out what references and what notes I may have taken out on some former occasion. After this the text-books, pamphlets and references are looked up, and on this occasion full notes are made on index cards, and when these are completed I am ready to write a paper or make my notes for a discussion in a medical society or give a lecture, or whatever I desire. It goes without saying that my case histories and my personal notes and observations are kept, filed and preserved in like manner.

It is true that this method of obtaining and filing the information, that I require in my work, requires time and effort; but so does every other method, and I believe rather more. As I have said before, any system of preserving or recording information must necessarily be more or less cumbersome and involved, but I believe that the system which I have outlined briefly is the most satisfactory solution of the problem that the physician who studies and who desires to keep up with his work can find. The case histories may be classified and cross-

Author:	
<hr/>	
Title:	
<hr/>	
Reference:	
<hr/>	
Price, \$	
<hr/>	
Received:	No.
<hr/>	
Case:	Section:
<hr/>	

1—Catalogue Card for Books

Subject:	
<hr/>	
Title:	
<hr/>	
Author:	
<hr/>	
Reference:	
<hr/>	
Case:	Section:
<hr/>	
Notes:	
<hr/>	

2—Catalogue Card for Books

Author:	
<hr/>	
Title:	
<hr/>	
Reference:	
<hr/>	
Price, \$	
<hr/>	
Received:	
<hr/>	
Pamphlet File No.	
<hr/>	

3—Catalogue Card for Pamphlets

Subject:	
<hr/>	
Title:	
<hr/>	
Author:	
<hr/>	
Reference:	
<hr/>	
Pamphlet File, No.	
<hr/>	
Notes:	
<hr/>	

4—Catalogue Card for Pamphlets

Digitalis
Physiol. Standardization of Digitalis and Ergot.
Ch. E. Haskell: Indianapolis Med. Jour. 1911, May.

5—Cards for Cross Reference

Digitalis
May cause abortion in cows.
Hutyra and Marek: Dis. of Domestic Animals, Chicago, 1912, II, p. 124.

6—Cards for Cross Reference

Digitalis.
R. A. Hatcher and H. C. Bailey, N. Y. Jour. A. M. A., 1912, Nov. 12, p. 1697.
The difficulties in the therapeutic use of the digitalis bodies depend on several factors. We have no definite knowledge of the rate of absorption of these bodies from the alimentary tract and this knowledge is the first requisite for oral dosage. We know little or nothing of the rate of excretion and destruction in the body. Except for the well known vague stimulation, we do not know whether they act directly on the cardiac muscle or indirectly through some nervous mechanism. The symptoms of their toxic action resemble closely those which they are intended to relieve and the toxic action of the drug may be superadded to the effects of the cardiac disease without the fact being recognized.

7—Cards for Cross Reference

(Actual Size of Cards, 3x5 in.)

referenced as may suit the convenience of the physician so that he can find at any time records of those cases which he may need for his review of any given disease. For instance, in the case cited above the case history would be filed under the name of the patient and the index would contain under "perineum" a reference to this patient; it would also contain an index-card referring to this patient with the subject heading, "bladder"; one with the subject, "hernia," and one with the subject heading, "gall bladder." This would save having to go through all the case histories in order to pick out references to a certain number that represents a given disease because the work would be done on the first filing.

By way of illustrating the method of cataloguing and filing and of indexing books, pamphlets and journal articles, the following cards are presented, which explain themselves.

My catalogue cards are blue for books (Figs. 1 and 2) and salmon color for pamphlets (Figs. 3 and 4), white for cross references (Figs. 5, 6 and 7). The index cards are plain white, of a somewhat lighter stock than those usually sold by manufacturers of index files. The first two of the latter contain reading notices, that is, references to subjects that may be of interest later on; the third contains a memorandum concerning the point mentioned in the subject heading. This can be cross-referenced if necessary and can be made use of immediately under its special subject.

32 North State Street.

REASONS WHY ILLINOIS SHOULD SUPPORT MEDICAL EDUCATION.*

By GEORGE W. WEBSTER.

It has been said with much truth that in the French Revolution the world was reborn. Certain it is, that after it, society began to discuss less theology and more the welfare of the people. The University of Paris had spent much time in discussing how many angels could dance on the point of a cambric needle and important matters of that kind, but after that great upheaval, the interests of the people became paramount.

The University of Berlin marked an era in modern education, and especially in modern medical education. This university was largely the result of the intellectual effort of William Humboldt and it was the first university in the world to take up modern investigation and modern chemical, physiological and medical research, with the results which I shall show. To the university the King of Prussia called the greatest scientific men of the world, many of whom were political exiles to whom he granted political freedom, as investigation must be carried on with an untrammelled hand. It was the University of Berlin that made Prussia the foremost of the German States. It was the University of Berlin, by the research work carried on there, that made Berlin the capital of Germany, where the Confederation was achieved. It was the University that made Berlin the medical and scientific center of the world and, as von Moltke said, "led the armies into Paris."

The spirit which led to the founding of the University of Berlin and to the reorganization of the education of France, began to be felt in this country. The result was that sentence, so prominent in the ordinance of 1787, reading something like this: "Religion, morality and knowledge being necessary, good government, schools and means of education shall be forever encouraged." That is the cornerstone upon which the Great Northwest was founded.

History teaches us that all our public educational institutions have developed from the common elementary school, step by step, one new type of school at a time, as the Pyramids grew from foundation stone, row on row, to capstone. For example, the kindergarten commenced under the auspices of private associations, where it made a success, and was then taken up by the public. At first there was

*Argument before the Appropriations Committee of both Senate and House. Springfield, Ill., March 29, 1911.

violent opposition to the establishment of the high school—the people's college, then in our own state more violent opposition by the economical politicians to the establishment of the Normal School; and yet these are now considered indispensable parts of our state educational system. Then came the State University, and you all know the attitude of Illinois and the advanced ground taken and held in regard to university education: it is to establish and maintain a complete educational system, beginning with the kindergarten and ending with the university, and that the latter shall be a university in fact as well as in name. The Great Democracy must educate itself from the bottom to the top, and the young American will not accept education as a largess from some millionaire's estate, but demands it as his right as a citizen seeking training to serve his time.

The medical school is rapidly passing from private to public control, and it is for us, therefore, to plan for the best reorganization of the medical college as a part of our public educational system, for it is just as much the duty of the state to train men at the public expense in the higher professions as it is in the elementary schools; and "those who represent the higher ideals of the medical profession must make a stand for that form of medical education which is calculated to advance the true interests of the whole people and to better the ideals of medicine itself." (Flexner.)

WHY SHOULD ILLINOIS SUPPORT MEDICAL EDUCATION.

Many medical colleges began and have continued largely as commercial and church schools, and they are commercial enterprises pure and simple.

At the present time the strong tendency is to transfer all medical education to University surroundings, as it is now quite generally agreed that the only proper home of the medical school is the university.

The United States Supreme Court has decided that the license and control of the Practice of Medicine, the regulation of practice, is a legitimate exercise of the police power and lies within the power of the state, and that the state has a perfect right to impose any regulations it pleases upon the Practice of Medicine. The State has established these standards, and it ought to provide the opportunity for securing that training which will enable them to be complied with, as it has been clearly shown that it is impossible to teach modern medicine and comply with the standards we have established and do it from students' fees alone. The standards must not and will not be lowered; therefore, the only logical thing to do is for the State to

support medical education. If the State controls medical education, it should support it.

The second reason why the State should support medical education is that it would enable the State to establish and maintain high medical educational standards, free from commercial motives, true university standards, and to provide the opportunity for obtaining such training. The university which establishes a medical school must make itself responsible for university standards, and institutional completeness will not be acceptable as an excuse for low standards. University ideals mean university support.

The third reason is that it would do away with cheap, low grade commercial schools. The day of the commercial school has passed.

The fourth reason is that it is done by other states. As you have already been informed, over twenty of the leading State Universities have been authorized and required by their respective states to take up the work of medical education upon a modern and scientific basis. Some of these—as for example, Michigan—have been making appropriations for medical education for nearly half a century. Minnesota is asking for an appropriation for the next two years of \$829,895.

The fifth reason is that it would enable the state to do as much for its citizens as it now does for its hogs and cattle.

The sixth reason is that it would provide an opportunity for original research work which would in all probability be of great benefit to the people of the state and to mankind. Its most important function would be the enlargement of medical knowledge. No great medical discovery can ever be made—no medical discovery of any kind, great or small, ever has been made—without the world being better off for it.

I have already referred to the influence of the University of Berlin upon the destinies of Germany. In our own country, the work of Major Ross of the British Army, and of Major Reed and Dr. Lazear, in malaria and yellow fever were of more value than the cost of the whole Spanish-American War. This knowledge has enabled us to construct the Panama Canal, and without this knowledge, it would have been absolutely impossible.

The chief reason is that it would lead to increased economic efficiency.

It is peculiarly the province of the State University to serve the public welfare functionally. The state has a right to call upon the university as a department of state. As colleges of agriculture with their experiment stations make profitable returns to the state for the

investments in them by improvement and increased yield from field and cattle, so the State University College of Medicine renders incalculable returns to society and humanity. The education of men by the state in state medicine, sanitation, sanitary engineering, preventive medicine, and all public health matters, would prepare and properly educate state and municipal health officers, specialists in school hygiene. It would furnish a place in which the State Board of Health should find the highest expert service, free from political or other contamination. In Minnesota, Dean Westbrook says, "The state's college of medicine and surgery should stand in the position of consultant to the various practitioners throughout the state." And again, "already in public health work, skilled medical, biological, economic, statistical, chemical, engineering, bacteriological and other experts are being employed as public servants, and their efforts co-ordinated for the public good."

Co-operation between the State University and the various state institutions, charitable and penal, would result in the training of experts for these institutions, thus securing a degree of economic efficiency not otherwise attainable nor obtainable. It would make possible the establishment of a large state laboratory in co-operation with the State Board of Health, the State Water Survey, the State Geological Survey, the State Food Commissioner, the State Eye and Ear Infirmary—all making for much better service for the people, at far less cost; a measure of economic efficiency otherwise not possible.

It would be a recognition of the accepted fact that the future of medical education is to be largely along the lines of preventive medicine, public hygiene and sanitation.

Lastly, the State Medical School will render a service to the state by educating competent physicians to go out and do their duty. Every time a competent physician, properly trained in his duties in state medicine, makes a call upon a case of infectious or contagious disease, even though paid his fee by the patient, in protecting the public against the spread of that disease he renders it a service whose good can hardly be estimated. The practice of medicine is, then, under all circumstances, a public service. The whole university may be rightfully regarded as the servant of the people, and this would apply in larger measure to the medical department than to any other. There is not a single university in the United States today that offers a reasonably complete course in state medicine in its broad sense: and Illinois should adequately support the medical department of the State University and enable it to establish such a course in the inter-

est of the health and lives of the people of the state, being assured that the service to the state would be of far greater value than the cost of the means employed.

Admitting the great responsibilities of the state universities in matters of public health, impressed by our opportunities and the clear vision of future possibilities of public health, we put up the prayer to you men of the legislature to "Come over into Macedonia and help us!" The original Macedonian cry was a missionary call at a crisis in civilization when the Occident turned to the Orient for the life of Christianity. At this moment we are awakening to the fact that the chief wealth of our country is not in our material resources but in the lives and health of our people. In the light of this knowledge, how great is our responsibility in this tremendous public health movement which has for its ultimate object the conservation of health, the lengthening of human life.

EXAMINATION OF EMPLOYEES FOR TUBERCULOSIS.*

BY THEODORE B. SACHS, M. D., CHICAGO.

Systematic examination of employees for tuberculosis leads to the detection of the following classes of cases:

1. "Open" tuberculosis (tubercle bacilli in the sputum). Most of these cases are moderately or far advanced; a small proportion may be just beyond the incipient stages.

2. "Active" tuberculosis, still "closed" (no tubercle bacilli in the sputum); a class of cases varying according to activity and extent of the process; chiefly "incipient"; some "advanced." Unless given timely and efficient treatment, a large percentage of these cases pass into Class 1 (become "open," communicable).

3. "Inactive" tuberculosis: signs of a healed lesion; no symptoms of "active" disease. A previous history of "active" tuberculosis or a tuberculous family history can be elicited in a large proportion of these cases.

4. Predisposition to tuberculosis (by malnutrition, anemia or any condition undermining resistance).

METHODS OF SOLUTION APPLICABLE TO EACH CLASS OF CASES AND MEASURES FOR UPBUILDING OF THE ENTIRE WORKING FORCE.

It will be seen from the consideration of the above-stated classes of cases that the tuberculosis problem in a working place presents the following important phases for solution:

1. *Detection and Segregation of "Open" Cases of Tuberculosis.*—A large number of these cases in working places without medical supervision remain undetected for months or years, acting as prolific sources of infection. Their elimination from close association with other employees, as well as the immediate institution of hospital, sanatorium, or, if feasible, home treatment, is an imperative step in the interest of those afflicted as well as of the entire working force. Institutional treatment safeguards best the interests of all concerned.

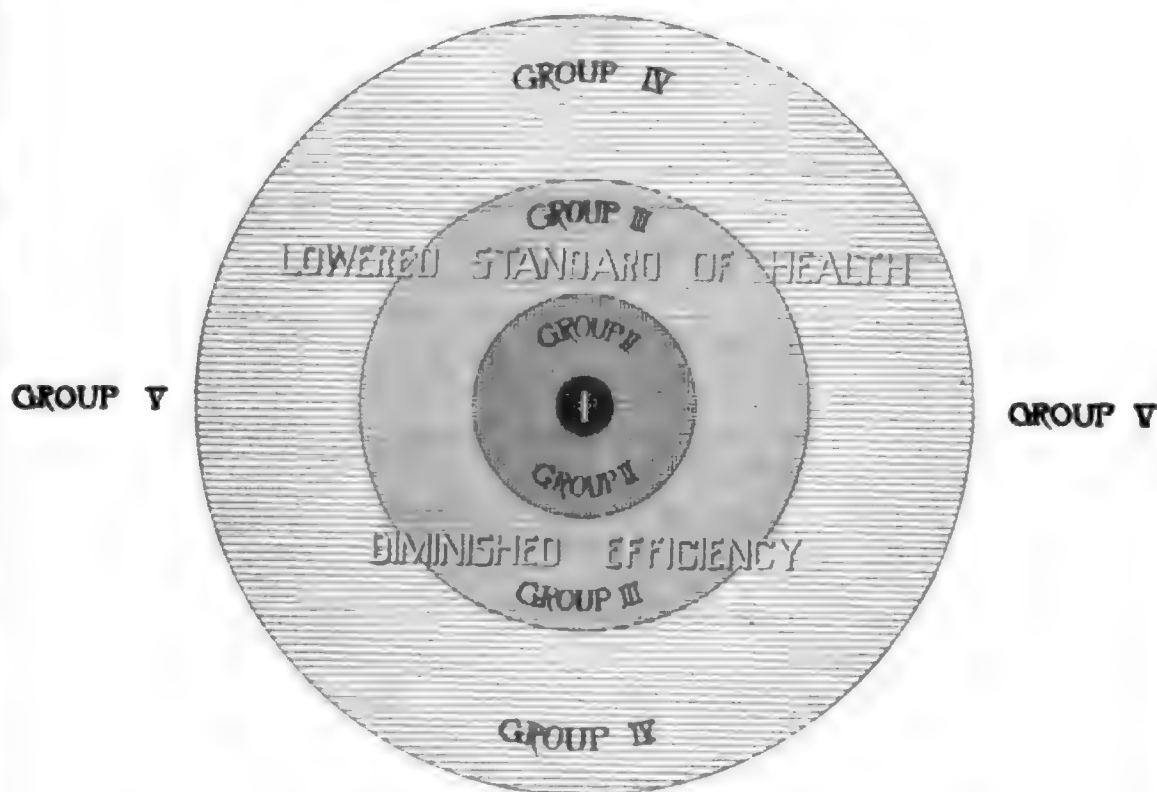
Those with the tuberculous process arrested and working power restored by institutional or home treatment, but still showing tubercle bacilli in the sputum, may be given either suitable outdoor work, or indoor work in hygienic, well ventilated quarters, but not in close contact with other employees. Conscientious, painstaking use of all the necessary precautions on the part of the tuberculous employee is a factor to be considered in the solution of each individual case.

*Read at the Fifteenth International Congress on Hygiene and Demography, held at Washington, D. C., Sept. 23 to 28, 1912.

The TUBERCULOSIS PROBLEM IN A WORKING PLACE

by Theodore B. Sachs

GROUPS OF WORKERS



CONDITION

REMEDY

GROUP I <i>Tuberculosis.</i>	<i>"Open" Communicable Cases.</i>	<i>Periodic Medical Examinations.</i>
GROUP II <i>Tuberculosis.</i>	<i>Disease Active, Progressive.</i>	<i>Right Conditions for Entire Working Force.</i>
GROUP III <i>Tuberculosis.</i>	<i>Disease Inactive.</i>	<i>Education of All to Right Living.</i>
GROUP IV	<i>Workers With Low Resistance.</i>	<i>Hospital & Sanatorium Treatment for Groups I, II & part of III.</i>
GROUP V	<i>Workers in Average Health.</i>	

RESULT

HIGHER STANDARD OF HEALTH AND EFFICIENCY

*For Copies of This Poster Apply to the Committee on Factories of
The Chicago Tuberculosis Institute*

The number of "open" cases of tuberculosis, discovered during the first few months of operation of an efficient system of medical examinations in a working place may be considerably larger than at any subsequent time, and yet the number of "open" cases is small as compared with the entire working force or the second, third and fourth classes of cases above mentioned.

It is not the number of "open" cases, but the possibility of transmission lurking in each case of this group, through indiscriminate expectoration, that renders control of "open" cases of tuberculosis most important from the standpoint of health of the entire working force. An efficient system of medical examinations in a working place should have, as one of its most important objects, the timely detection and control of these cases.

2. *Sanatorium or Home Treatment of "Closed," "Active" Cases of Tuberculosis.*—As previously stated, cases of "closed," "active" tuberculosis vary considerably, according to the degree of activity and the extent of the tuberculous process. The variation extends from the very slight impairment of the general condition, with little constitutional disturbance and no positive physical signs of pulmonary involvement, to progressive deterioration of health, with afternoon fever, various symptoms of toxemia and marked physical signs of a progressive lesion.

Cases of the mildest type frequently respond favorably, without discontinuance of work, to a rearranged regime of life, embracing particularly longer hours of night rest, avoidance of overexertion, a more liberal diet and abundance of fresh air. A limited period of sanatorium treatment may be advisable, however, from an educational standpoint, in a proportion of cases even of the mildest type.

As a general rule, temporary discontinuance of work and treatment in a sanatorium are indicated in the majority of "active" cases, and this should be continued in each individual case up to the point of arrest of the tuberculous process and restoration of the working capacity.

Early diagnosis of active cases of tuberculosis is most important from the standpoint of chances of recovery and duration, and, consequently, the expense of treatment.

The earlier the diagnosis, the better are the chances of recovery and the shorter is the period of treatment.

3. *Increase of Resistance of Employees with Signs of Inactive Tuberculosis and of Those Predisposed to the Disease.*—Employees with signs of "closed," "inactive" tuberculosis (Class 3), as well as

those "predisposed" to the disease (Class 4: the anemic, poorly nourished, those with frail physique, etc.), may be classed under the general designation of "employees with low resistance." This group forming a considerable proportion of any working force, offers a fruitful field for correction based on thorough investigation of each individual case.

Due consideration should be given in all such cases to the following factors influencing the health of the employee: first, the physical fitness of the employee for the given task (degree of exertion involved, position at work, hours, surroundings, etc.) ; second, personal regime: sufficient rest, ventilation of bedroom, nourishing diet, avoidance of harmful conditions and practices, etc. With all these items in the personal life of the employee thoroughly analyzed by the examining physician, considerable improvement of the physical condition of an employee is often possible even with a very slight rearrangement in his daily regime.

The task of the physician is that of a teacher of "right living." Personal instruction given by him to the employee followed by detailed home instruction by the nurse should mark to the employee the stepping stone to better health.

4. *Instruction of the Entire Working Force in the Essentials of "Right Living."*—Noonday or evening talks on "essentials of right living," "prevention of disease" and similar topics given from time to time to the working force, or to its separate groups, tend to the enlightenment of the worker on the essentials of health and its preservation. The interest in matters pertaining to health is rapidly increasing among working people and a physician, speaking on this subject, "to the point" and in simple language, will find in them an appreciative audience.

It is inevitable that the spread of information on maintenance of health among employers and employees is followed by the gradual elimination of conditions in working places which are detrimental to health.

The ultimate result of operation of a system of medical examinations and instruction in a working place is a higher standard of health and efficiency of the working force as well as a stronger bond of understanding between the employer and employees.

EXAMINATION OF EMPLOYEES FOR TUBERCULOSIS A PART OF GENERAL
MEDICAL EXAMINATION. TIME OF THE FIRST AND
SUBSEQUENT EXAMINATIONS.

Examination for tuberculosis should be a part of the general medical examination. An efficient general medical examiner of an

industrial concern is fully conversant with the disease. It is desirable, however, that all medical examiners should acquaint themselves with methods of diagnosis and solution practiced in well conducted tuberculosis clinics.

It is apparent that in the interest of all concerned the first examination should take place at a time of the engagement of the employee. This is being done at present, with some variations, in a few Chicago concerns. Preliminary information is obtained by means of an application blank including questions pertaining to former and present health of the applicant and his general appearance is scrutinized by the employment manager and nurse assigned to his office. Suspicious cases are submitted to the physician for immediate examination. All other successful applicants are examined during the first week of their employment. The International Harvester Company examines at present all of their applicants for work; Sears, Roebuck & Co. are introducing the same.

In other concerns the medical examination of the employees comes with the application for membership in Employees' Benefit Association, which includes a varying proportion of the working force. This is the case with Sears, Roebuck & Co., International Harvester Company, Montgomery Ward & Co., Commonwealth Edison Company, Chicago Telephone Company, Swift & Co., et al. Welfare departments operated by these firms also bring to the attention of the medical examiner a certain proportion of suspicious cases.

The general medical examination of an employee should be repeated at certain intervals and also when an employee becomes sick while at work, when the appearance of the employee or certain symptoms suggest the possibility of a gradually developing illness, or on return to work after a period of absence due to illness.

THE CAMPAIGN IN CHICAGO FOR EXAMINATION OF EMPLOYEES FOR TUBERCULOSIS.

Eighteen months ago a plan of examination of employees for tuberculosis was submitted to the Chicago Tuberculosis Institute. The plan is described in detail in this paper. To put the plan into operation the institute appointed a committee on factories, which since that time has been conducting a campaign among employers of labor in this city.

The important problem in Chicago, as it would be in any other city, has been to interest the employer in the necessity of such examinations. The chief obstacle to the introduction of any system was the lack of information on the part of the employer that there is any such thing as a tuberculosis problem in his place, as well as the

lack of appreciation on his part that any benefit can accrue to the firm through the operation of a system of examinations.

In making the appeal to the employers we have placed emphasis on the financial loss sustained by the employer through the imperceptibly growing reduction of working power in the early stages of tuberculosis, the danger to the entire working force from the unknown, uncontrolled "open" cases of the disease, the constant infection of other workers, the subsequent loss of experienced men, the reduction of the general efficiency of the entire working force through the existence of uncontrolled sources of infection, etc. In our campaign we were generally assisted by the humanitarian attitude of the employers toward their workers.

Early in the campaign, a chart was devised which proved of value in the conferences between the committee on factories of the Chicago Tuberculosis Institute and the employers whom we were eager to enlist. The chart, as here reproduced, shows in concentric circles the various groups of tuberculosis cases, which you would expect to find in a working place; the size of the circle showing in a general way the relative number of workers included in each group and the degree of shading pointing to the relative importance of the group from the sanitary standpoint.

It was very essential to make it clear to the employer that systematic examination of employees for tuberculosis will disclose not only the "open" and "active" cases of tuberculosis, the solution of the majority of which lies in institutional treatment, but also the larger group of workers in whom a predisposition exists either because of latent infection or because of malnutrition, anemia, etc. One of the important objects of the examinations, the employer was told, is to raise the resistance of these groups through proper medical advice, education in right living, change in occupation if necessary, etc. By the spread of this education in "right living" among the employees, the final result is a "higher standard of health and efficiency of the entire working force."

As the result of a campaign conducted by the committee on factories of the Chicago Tuberculosis Institute during the last eighteen months, systematic examination of employees for tuberculosis is at present in operation in the shops of the International Harvester Company, Montgomery Ward & Co., Chicago Telephone Company and Swift & Co. Sears, Roebuck & Co. have for some time past paid special attention to tuberculosis as a part of the general examination.

The physicians connected with the above and other concerns meet with the committee on factories of the institute from time to

time to discuss the important phases of their work, and these meetings are very important in the gradual formulation of principles and practices. At the four conferences so far held, the subjects chosen for discussion were: "The Best Method of Campaigning for the Extension of the Examination of Employees to Other Concerns," "The Time of the First Examination of the Employees," "When Should the Examination be Repeated," "What Should the Examination Consist of," etc.

At the next meeting representatives of the above firms as well as of the large department stores and their physicians, will meet with the committee of the institute to further discuss the various features of the problem.

The prospects are for the gradual introduction of the principle of medical examinations into an increasing number of concerns.

THE CAMPAIGN IN CHICAGO FOR EXAMINATION OF EMPLOYEES TUBERCULOSIS.

The details of the plan submitted to the Chicago Tuberculosis Institute eighteen months ago and since then advocated under the auspices of its committee on factories is as follows:

1. Physician to examine all suspicious cases.

In places with established medical service, this task may be assigned to the physician on the staff of the firm. In large establishments a special "tuberculosis" examining physician may be necessary. In either case, possession of special experience in the diagnosis of tuberculosis is very important.

Duties of the physician: examination and diagnosis of cases; disposition of those found tuberculous; instruction of the sick in the essentials of treatment and of the "predisposed" in right living and in measures tending to increase the general resistance; frequent noon or evening talks to the entire working force on maintenance of health and prevention of disease.

Cooperation with the family physician of the employee in all cases in which the family physician prefers to retain control of the case.

2. Trained nurse to assist the physician.

Duties: to assist the physician during examinations; to visit and study the homes and living conditions of employees pronounced "tuberculous" or "predisposed"; to instruct in the fundamentals of right living and in the methods of care and prevention by actual demonstration in the employee's home; to gather in each individual case information essential to its right solution.

3. Classes of cases to be examined.

At a conference between the superintendent, physician and nurse it is agreed that the employees are to be watched for certain symptoms possibly indicative of tuberculous infection. A list of these symptoms is given in a card prepared for the guidance of superintendents and foremen, which is printed in full below:

DIRECTIONS TO FOREMEN OR OTHERS IN CHARGE OF EMPLOYEES
TUBERCULOSIS IS CURABLE—IF DISCOVERED EARLY

PLEASE THEREFORE WATCH FOR THE FOLLOWING GROUPS OF CASES:

1. Employees below weight, weak or anemic.
2. Employees whose working power seems on the wane, without apparent cause.
3. Employees from houses where death from tuberculosis occurred, or where a case of tuberculosis exists, or employees who have been previously treated for tuberculosis.
4. Employees who have the following, due frequently to tuberculosis:

- (1) Gradual loss of weight and strength.
- (2) Fever in afternoon (even though slight).
- (3) A lasting cough or cold.
- (4) Loss of appetite.
- (5) Hoarseness, continued or recurring.
- (6) Night sweats.
- (7) Spitting blood.
- (8) Tired all the time.

Committee on Factories of
The Chicago Tuberculosis Institute,
1351 Otis Building, Chicago.

4. Examination.

With the compilation of a list of suspicious cases, all such cases are submitted to thorough medical examination.

Each individual case is classified, (a) according to diagnosis: "tuberculous" or "non-tuberculous," "active" or "non-active," "open" or "closed"; (b) according to necessity of change of occupation or discontinuance of work; (c) according to need of hospital, sanatorium or home treatment.

The solution of each case is considered after a full analysis of all its medical and social aspects.

5. Supervision of various groups of cases.

Close supervision is maintained over (a) employees classed as "predisposed"; (b) employees returned to work, with disease "apparently cured" or "arrested" by institutional or home treatment; (c)

employees taking "home treatment" under the direction of the company's physician.

The above described arrangement aims at continuous watch of health of employees engaged after (or without) a preliminary medical examination. The plan resolves itself finally into (1) medical examination of applicants for work, and (2) supervision of health of employees while at work.

CONCLUSIONS.

Very important consideration prompted the campaign in Chicago for the introduction of systematic examination of employees for tuberculosis: first, the realization that early diagnosis of tuberculosis can be best attained with a system of examinations of working people, that will detect the disease long before the pronounced symptoms manifest themselves, detected while they are at work frequently unsuspecting the presence of any disease; second, the operation of a system of examinations in a working place and the knowledge of the existing conditions gained thereby eventually leads to the improvement of sanitary conditions and enlists the support by the employer of adequate and efficient institutional provision for the treatment of tuberculosis; third, the further realization on the part of the workers, employers and the community at large of the present utter helplessness of a worker in the case of illness will lead to more comprehensive measures for the protection of the worker and his family, in the case of his illness (further extension of the principle of the employees' benefit associations, workingmen's insurance, etc.).

Experience in anti-tuberculosis work in a community teaches us that support of any element in the community can be permanently gained by a clear demonstration of the relation of that element to the existing problem, and this is becoming apparent in our present campaign in Chicago.

Those who wish to get further details of the plan in operation may write to the Chicago Tuberculosis Institute, Otis building, Chicago.

To summarize: the aim of the described plan of examination of employees for tuberculosis is, first, detection and suppression of sources of infection in working places; second, detection of cases of the disease in the curable stages; third, guidance of all employees predisposed to the disease and of those who are re-employed after having recovered their health by sanatorium or home treatment; fourth, guidance of all employees in right living and methods of prevention; fifth, elimination, with the spread of information, of conditions undermining the health of employees.

SOME BLOOD PRESSURE METHODS AND SUGGESTIONS.

By DR. JAS. F. PRENDERGAST, PHILADELPHIA, PA.

The value of the blood pressure test is acknowledged by every up to date clinician; the skeptical are those who have had but little experience in its use. Like the clinical thermometer, the stethoscope and other instruments of precision, the sphygmomanometer is an aid to accuracy in diagnosis, and any instrument that will enable the physician or surgeon to do better work is not to be set aside or passed by without careful investigation. There are two types of instruments, the Mercury, and the so-called pocket or Aneroid. The Mercury is now and always has been used for laboratory investigation, and where it does not have to be carried about very much, as in office work, it is the instrument of choice. The Aneroid or pocket type is the instrument for carrying about and for bedside work in general practice and for the doctor or surgeon in country practice who knocks about over rough roads. It occupies small space, is readily carried in the instrument bag and is easily and rapidly used for bedside test without disturbing the patient. As for accuracy and durability, the writer has for the past eight months used an aneroid instrument, a Faught, and has forced it up to 450 mm. over 1,000 times. After this severe test it was compared with a Standard Mercury column and found as accurate as at the original test. It is still in splendid working condition and the compression diaphragms are as resilient as the day it left the shop. This is a test of the most severe character and an instrument that will remain accurate under such conditions will last indefinitely with ordinary use. There are three methods of taking the blood pressure, the tactile, the visual and the method by sound. Of the three the method by sound is the most accurate, and the easiest to obtain the diastolic pressure. Some of our clinicians place little value on diastolic pressure for the simple reason that they cannot interpret its findings. This is a great mistake, as the systolic pressure is only one side of the picture and we cannot obtain the pulse pressure or judge of the systolic output or the work the heart is doing without knowing the diastolic pressure. Now I contend that it is of great importance to know whether under certain conditions the pulse pressure is 20 or 40 or 60 or even 100. In the first case it would mean a rather feeble drive to the heart with a small systolic output; in the latter the heart is working too hard in overcoming peripheral resistance or loss of elasticity in the wall of the vessel and is calling on its reserve capacity; as long as it compensates we have a good case, but once our reserve capacity is overcome and

decompensation sets in look out for trouble. The narrow pulse pressure is found in wasting diseases like tuberculosis, in shock, after profuse hemorrhage, in cholera, etc., and always accompanies a failing heart. In failing heart the systolic approaches the diastolic pressure and the pulse pressure gets narrower as the circulation fails.

In pneumonia and most infectious diseases a falling blood pressure with a narrowing pulse pressure means grave danger. A wide pulse pressure is found in arteriosclerosis, with loss of elasticity in the blood vessels and with increased peripheral resistance, in chronic interstitial nephritis and is very wide in aortic insufficiency, in fact is pathognomonic of this condition.

Dr. George Oliver says he has of late come to consider the diastolic pressure as precise as the systolic and more valuable.

Dr. Gossage thought that though the systolic pressure was today most useful the diastolic tomorrow might take first place.

The fact that we are unable to interpret the true value of diastolic pressure is no reason why we should set it aside as having no clinical significance.

Blood must flow through the arterioles during diastole; when there is an increased resistance and the arteries are degenerated, or in other words when we have loss of elasticity in the arteries, the systolic pressure output of the heart is enormously increased. The elasticity of the vessel wall equalizes the pressure in the systole and diastole of the heart. With a loss of this elasticity violent fluctuations in the blood pressure ensue and the result of this is a great strain on the heart. The result of the strain is cardiac hypertrophy and later dilatation with failing compensation.

Under normal conditions there is a definite relationship between systolic and diastolic pressures, and very probably between systolic and pulse pressure. The relation of the diastolic to the systolic pressure is as 3 to 4, and the pulse pressure to systolic is as 1 to 4. Bearing these facts in mind there is also within certain limits a definite relationship between pulse pressure and velocity, and the other factors remaining the same it is not a difficult matter to estimate the velocity of the blood, the work of the heart and the increased strain when we have a continuous high pressure. To find the velocity multiply the pulse pressure by the pulse rate.

To reckon the work of the heart multiply the systolic pressure by the pulse rate (Gibson) or multiply the mean pressure by the pulse pressure and by the pulse rate (Brunton).

Example: The normal systolic pressure in adult middle life is about 120, the diastolic pressure 90, the pulse pressure 30, the rate about 70.

$$P. P. (30) \times P. R. (70) = \text{Velocity (2100)}.$$

$$S. P. (120) \times P. R. (70) = \text{Work (8400)}.$$

A normal arterial tree will support a pulse pressure of 40 to 45. In certain pathological conditions we have a pulse pressure of 80 or more which is 40 above what is required under normal conditions. Now, multiply this by the pulse rate, 70, and by 60, and then by 24 and it is easily seen the tremendous excess work the heart is called on to do every 24 hours in order to maintain the circulation and nourish the tissues under such conditions. It also explains why the heart hypertrophies and ultimately dilates with failing circulation.

Lander Brunton says: "The diastolic pressure is a factor of great importance because by its amount and by the difference between it and the systolic pressure we obtain valuable data in regard to the strength of the heart and the condition of the arterioles."

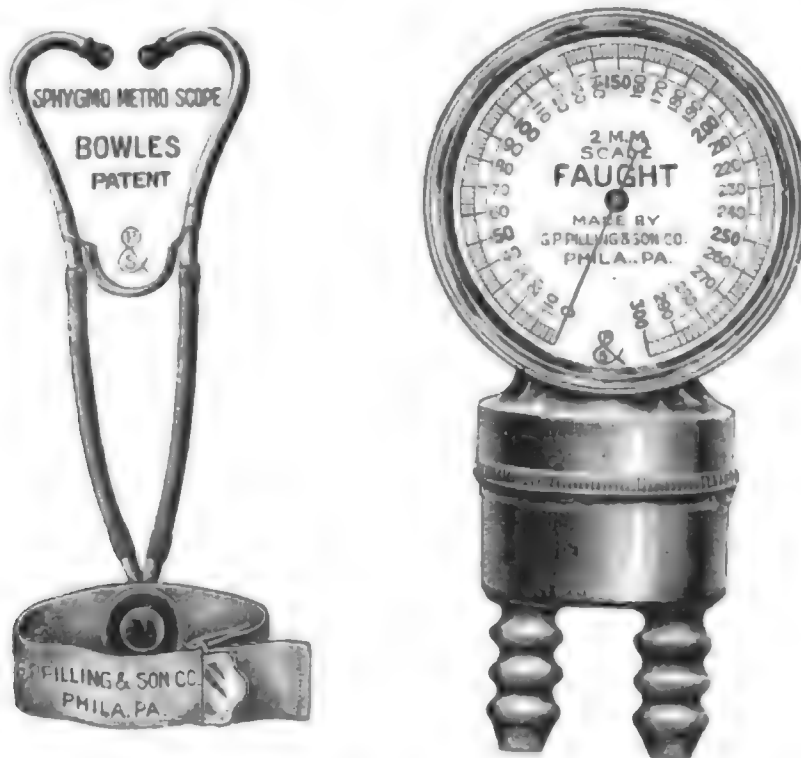
The reason diastolic pressure is neglected is probably on account of the difficulty of accurately measuring it. The usual methods for obtaining it have been by watching the oscillations of the mercury column or the excursion of the needle in the aneroid instrument, and reading the diastolic pressure at the widest oscillation of the column of mercury or greatest swing of the needle. Erlanger's instrument records the pulsation on a revolving drum, but on account of its size it is not an instrument for general use.

The objection to the first two methods is that frequently it is practically impossible to say just what is the maximum oscillation of the mercury or needle. I have frequently seen cases in which the mercury and needle have maintained the same width of movement for 20 or 30 mm. or even more and it was pure guess to say which was the widest oscillation and therefore impossible to obtain the diastolic pressure. This generally happens with a small pulse and a poor systolic output or drive to the heart. The writer has been able to read the diastolic pressure in these cases by carefully palpating the radial pulse and noting the maximum wave felt and at the same time sharply watching the mercury or needle, a slightly wider oscillation can be noted at the point of maximum pulse wave. This requires practice and experience. To overcome these difficulties and to obtain accurate results the writer advises the auscultatory method of blood pressure readings.

In Oct., 1905, Korotkoff, of St. Petersburg, first advocated the

determination of blood pressure by auscultation, and this method has been thoroughly studied and generally adopted by the German clinicians as a routine procedure. Ettinger, Ehret, Krylow, Bozowski, Fischer, Sterzing and Schrumpf abroad, Goodman, Howell, Gittings and Norris in this country have studied and investigated this method and recommend it as more accurate than by palpation of the radial pulse or watching the oscillations of the column of mercury or the needle.

In order to enable physicians to take the blood pressure readings more accurately and to make them of greater clinical value to the



profession as a diagnostic and therapeutic guide, my instrument makers have placed on the market, at the suggestion of the writer, an auscultoscope. It consists of a two-inch band to which is attached a metal bowl or cup, the face of which has a very delicate diaphragm with a center projection to fit more snugly to the surface of the arm over the brachial artery just at or below the bend of the elbow. Flexible rubber tubes are connected with the drum or body of the instrument to which are attached hard rubber ear pieces. It is called the Bowles Sphygmometroscope and resembles the Bowles stethoscope; it is attached to the arm by a two-inch band.

The instrument is intended for use with any kind or form of sphygmomanometer either pocket or mercury. Its method of ap-

plication is to place the band on the arm one or two cm. one-half to one inch below the arm band or cuff of the sphygmomanometer at the bend of the elbow, having the projection on the diaphragm of the drum directly over the brachial artery before it divides into the ulnar and radial, care being taken to avoid pressure.

Pump the cuff connected with the manometer with air until the radial pulse is cut off, open the release valve, and allow the air to escape slowly from the arm band. The first impulse or sound heard is the systolic pressure; it is a clear thump or tap caused by the sudden stretching of the walls of the relaxed vessel and the rapidity of the blood stream (Krylow): 1st phase, then follows a murmur (second phase) followed by a clear sound (third phase) clear sound becomes dull (fourth phase), disappearance of all sound which is the *diastolic pressure* (fifth phase). The systolic and diastolic pressure are read off the scale of the sphygmomanometer as the sounds are heard. Some clinicians accept the fourth phase as the diastolic pressure, but the men who have had the greatest experience and have done the most experimental work accept the fifth phase as the true diastolic pressure.

Where one is merely trying to read the systolic and diastolic pressures it is not necessary to attempt to interpret the different phases. The essential thing to remember is, that the first tap or sound is the systolic pressure and just at the disappearance of all sounds is the diastolic pressure. Clinical experience and laboratory experiments will, in time, help us accurately to determine the meaning of the different phases or sounds. For instance, Fischer found in cases of high diastolic pressure the first sound or phase was loud and clear, the second when present was short but clear. If the third was short the fourth could not be heard.

In arterio-sclerosis with hardening and loss of elasticity in the blood vessels, Krylow says, the auscultatory phenomena are apt to be more pronounced. According to Ettinger's experience the rapidity of the blood stream increases the auscultatory phenomena. He also believes that absence of the third phase alone denotes moderate weakness of the heart muscle, while coincident absence of the second and fourth phases indicates that the weakness has reached a high degree. When there was improvement of the heart in some of his cases the third phase returned. In a case of fatal pneumonia with sudden cardiac failure, on the day of death there occurred a sudden disappearance of the second and third phases. Howell and Goodman say that absence of the fifth phase is pathognomonic of aortic insufficiency.

In many cases of aortic regurgitation, the determination of the diastolic pressure by auscultation is impossible owing to the well known "pistol shot" sound (Gittings).

To get accurate results the cuff of the sphygmomanometer should be a wide one twelve cm., and fit the arm perfectly. The patient must co-operate with the physician and keep perfectly quiet or sounds may be produced which can be easily misinterpreted. The advantages of having the sphygmometroscope band strapped on the arm are: It gives us free hands to manipulate the release valve and palpate the radial pulse, combining the two methods, one checking the other. The bowl of this instrument fits more snugly to the arm and can be held in position directly over the vessel, thus magnifying the sounds and not being supported by the hand, extraneous sounds are prevented.

The auscultatory method is more accurate, and the reading of the diastolic pressure much easier and more reliable. The readings from actual demonstrations are from five to ten mm. higher than palpation. The systolic pressure is higher and the diastolic is lower, giving us a wider pulse pressure which from experimental data is closer to the true blood pressure than that found by palpation.

The writer advises, until experimental research and clinical study prove the contrary, that the last phase or the disappearance of all sounds be accepted as the true diastolic pressure. This is the teaching of the majority of clinical workers who have had the largest experience in this line of research. Furthermore, if this suggestion is followed our blood pressure records will be standardized and of greater value.

Goodman and Howell say: The auscultatory method is useful in differentiating certain organic and functional derangements. It was found that any arrhythmia which may be present is noted earlier by the auscultatory method than by feeling the pulse or listening to the heart. By this method true organic cardiac lesions can be differentiated from a neurosis. In organic lesions there is a uniformity in sequence of readings; in neurosis the readings are marked by variations in sequence and a variation in the systolic and diastolic pressures.

The systolic is the maximum pressure. The diastolic is the minimum pressure. The pulse pressure is the difference between the systolic and diastolic pressures, it represents the actual head of pressure forcing the blood towards the periphery. The mean pressure is the sum of the systolic and diastolic pressures divided by two, or add one-half the pulse pressure to the diastolic pressure.

Example:

Syst. Pressure (120) + Diast. Press. (90) $\div 2$ = Mean Pressure (105)
or

$\frac{1}{2}$ Pulse Pressure (15) + Diast. Pressure (90) = Mean Pressure (105)

The mean pressure is taken to be a point half way between the maximum and minimum pressures.

Some Things to Remember. The most important factor in maintaining the arterial pressure is the energy of the heart.

When the arterial pressure is high the cardiac impulse is forcible and the second aortic sound is loud. Low arterial pressure is generally associated with feeble cardiac impulses and short, high, weak sounds.

Persistent high arterial tension per se leads to arterio-sclerosis and atheroma; therefore, it is of the greatest importance to ascertain the arterial tension of patients in middle life (Brunton).

In a persistent high systolic pressure of 180 and over it is suspicious of chronic interstitial nephritis.

It is as scientific to try and estimate the tension by feeling the pulse as it is to judge the temperature by the sense of touch, and about as accurate.

Treatment:

This is a condition in which prevention is of far greater value than treatment, as once the vessels, the kidneys and the heart are damaged we cannot hope for a cure, but must regulate the life of our patients and prevent further injury to the already impaired circulatory (apparatus) system. We should be careful not to give drugs that will elevate an already high pressure or drugs that will lower a pressure when it is low. Don't attack with vigor the blood pressure merely because it is high, hunt out the underlying cause of the elevation of the pressure and treat that. Remember a high pressure may be compensatory and to depress it suddenly may cause mischief by disturbing a compensating heart. Regulate the diet, cut out some of the meats, give vegetables and milk. Stop excess in smoking, drinking of alcohol, coffee and tea, take moderate amount of exercise, stop worry, see that your patient secures sound sleep, for this chloral is a good drug as it tends to lower a high tension, it sometimes acts like a charm. Hold your nitroglycerine for emergencies. In threatened attacks of apoplexy or cerebral hemorrhage, bleeding will quickly reduce the tension and possibly prevent the threatened attack. Stimulate elimination by the bowels, skin and kidneys. Salts or salines every morning with a mercurial twice a week, either calomel or blue mass is an excellent remedy in high tension.

Electric light sweat baths and high frequency currents are valuable in high tension. A drug little used in this country but highly recommended by English clinicians is the hippurate of ammonia or lithia; they say it will not upset the digestion or cause unpleasant symptoms. The hippurate of ammonia is better borne; it can be used in tablet form, 5 to 7 grains in 24 hours is sufficient. In a few days the dose can be lessened until a dose every second day is enough.

If the case has not advanced too far and the arteries have not become sclerosed; iodide of potash or soda will do good; give 5 or 10 grains three times a day and watch results, it may be necessary to increase or decrease the dose. If you have signs of failing compensation or a poor circulation don't be afraid to use digitalis though the pressure is high, it will do no harm unless you give an overdose; watch the effects of the drug and be guided by its action and not by the dose. In low blood pressure stimulate and feed high, give proteins freely. Suprarenal extract will raise the pressure but must be used with judgment. With very low pressure insist on rest in bed.

SUMMARY.

For routine estimation of the systolic and diastolic blood pressure, the auscultatory method is by far the most accurate and satisfactory. The sphygmometroscope by magnifying the sounds and giving the user the freedom of his hands renders the work more accurate, simpler and pleasanter.

PHILADELPHIA, PA.

THE CHICAGO MEDICAL RECORDER

AND
JOURNAL OF THE MEDICO-LEGAL SOCIETY
Pullman Building, CHICAGO

EDITORIAL BOARD

DR. E. W. ANDREWS	DR. FRANKLIN H. MARTIN.
DR. FRANK T. ANDREWS.	DR. JOSEPH MATTESON.
DR. CHARLES C. BEERY.	DR. FREDERICK MENGE.
DR. R. W. BISHOP.	DR. THOS. J. WATKINS.
DR. JAMES BURRY.	DR. SAMUEL C. PLUMMER.
DR. HENRY T. BYFORD.	DR. ARTHUR R. REYNOLDS.
DR. FRANK CARY.	DR. HOMER M. THOMAS
DR. E. J. DOERING.	DR. H. H. FROTHINGHAM.
DR. JUNIUS C. HOAG.	DR. OTTO L. SCHMIDT.
DR. FRANK S. JOHNSON.	DR. D. A. K. STEELE.
DR. A. CHURCH.	

COMMITTEE ON PUBLICATION

E. J. DOERING	HENRY T. BYFORD
A. R. REYNOLDS	

Vol. XXXV. No. 3.	PUBLISHED MONTHLY.	SINGLE COPIES 20 CTS.
NEW SERIES.	Chicago, Ill., March 15, 1913.	\$1 A YEAR IN ADVANCE.

Editorial.

GOVERNOR SULZER

New York State is fortunate in having a governor who appreciates the great value of a healthful manhood in his state. Governor Sulzer became governor January 1st of this year. On January 10th he appointed a special commission with Dr. Hermann M. Biggs as chairman "to collect facts, receive suggestions, and make recommendations as to changes in the public health laws and their administration." The committee moved swiftly, made a preliminary report on February 15th and on February 19th the Governor sent the report with a forceful and convincing message to the legislature. A new state health law was at once drafted and we have no doubt will be enacted promptly. The commission is retained and is still at work.

Such vigor and activity in seeking intelligent and practicable means of protecting human life and developing normal useful citizens

is most unusual and most commendable. Any administration which deals first with the care of man himself and afterward with his worldly assets must surely be moving in the right direction. We sincerely hope the legislature of the State of New York will give the Governor the wise help and cooperation he deserves.

ARE THE CAUSES OF EPILEPSY AND INSANITY UNDISCOVERABLE?

The Board of Administration of the State of Illinois has asked for \$9,628,300.00 from the present Legislature for the Charities of the State for the coming two years. This is on a basis of \$3,506,681.50 for the annual custody of the epileptics, the insane and the other wards of the state, the balance is for additions to the plant.

It will be remembered that the bill for the epileptic colony which was passed by the last Legislature was thrown out by the Supreme Court. The present bill now before the Legislature is virtually a re-enactment.

We wish to call attention to the fact that the State supports the Psychopathic Institute, as provided by the Code of Charities of 1907, on the present appropriation of \$11,800.00 a year. The Director of the Institute has this year called for \$17,300.00 a year and the Fiscal Secretary has allowed it to go into the formal call made by the Board of Administration. \$3,506,681.50 a year for custody, and \$17,300.00 for research and cure!

The whole problem of the insane is one which ought to arouse the attention of every statesman, every educator, and every parent. Our latest information shows that in 1910 there were 187,454 persons in the custody of the 372 public institutions for the insane in the continental United States. Of these, 60,603 were committed during the year. It is probable that the number of epileptics who are in need of State supervision, both on account of the danger which they constantly offer to society, and also on account of their own needs, is quite as large a number.

It is the custom, and has become almost the principle of modern statesmanship to provide public institutional care for these abnormal members of society. They are considered in much the same position as the criminal. As Dr. George Webster, President of the State Board of Health, once said in a public meeting, "The insane are confined, not for their own good, but for the good of those of us that are not yet committed."

It appears to us that if we consider our own good we should ex-

pend not forty per cent of the State budget each year for the confinement of the insane, and less than one-third of one per cent of that sum for research into the means of curing and preventing insanity; but as much as is necessary for custody and a liberal percentage for research into the causes of those conditions for which custody is required.

We notice that the bill now before the Legislature for the colony for epileptics provides that the medical staff of the colony shall have the same privileges in the Psychopathic Institute at Kankakee as the medical faculties of the institutions for the insane now enjoy. This seems to us a most ridiculous provision and is in no sense a promise of research into the causes of epilepsy. We are proposing to put upon the State the care of not less than five thousand epileptics, and yet we are making absolutely no provision for the study of the causes of epilepsy. We must either assume that epilepsy is a demoniacal possession as our ancestors did, or that it is a tangible, physical, explorable condition, such as we have found leprosy, syphilis, tuberculosis and yellow fever to be. If the latter, then it is an obvious duty, both from an economic and a humanitarian point of view, to discover the causes of epilepsy and methods of prevention or cure by such research as the code of charities enjoins.

The pessimistic attitude which some good men hold toward any scientific activity on the part of the State, is far from being sustained by adequate consideration of the history of the past. It is certain that individual efforts to solve the problem of yellow fever were wholly fruitless, but when the problem was attacked by the physicians of the United States Army it yielded its secrets without great delay. It must not be forgotten that the hook-worm disease in the South was not discovered by individual effort as a cause of the great inefficiency of that people, but it was demonstrated by the scientists of the Department of Agriculture of the general Government.

There are many of the keepers of the insane who now look upon insanity as the result of a twisted idea, and that a sexual one. We would not combat the notion but call their attention to the fact that a theory of this kind, however paralyzing to research it may be, is beyond refutation by reason or argument. Like the astrologic prognostications of the eighteenth century, or the spiritualistic and pseudo-religious systems of the present day, it can be undermined only by the demonstration of an adequate and physical cause, similar to that which has been demonstrated for general paresis, the alcoholic insanities and those of the puerperal period.

If there was a suitable cooperation between the University of Illinois and the Board of Administration and if the clinical and administrative functions of the Psychopathic Institute could be separated from the research function, which function is distinctly enjoined by the Code of Charities, and if an optimistic and aggressive study of the condition of the insane, the course of insanity from its earliest incipency to its very end was pursued by a body of young, capable, and permanently employed research men under an optimistic and enthusiastic director, there is every reason to believe some progress would be made in solving the problems of this darkest field of clinical medicine.

The medical profession of the State can do a good work by insisting upon an adequate provision for research into the causes of epilepsy, insanity and the other conditions for which the expenditure of forty per cent of the total budget of the State is now necessary.

Why save at the spigot while we spill at the bung? Why millions for hopeless custody and so little,—practically nothing,—for research looking toward prevention and cure?

BAYARD HOLMES.

SMALLPOX.

There has been an unusual amount of smallpox in Chicago and vicinity during the past winter. The existence of smallpox in any community is a reflection upon the intelligence of that community. The energy of the Health Department in the work of vaccination has lagged during the past few years. Formerly the Health Department vaccinated all whom they had men and means to reach. Now the Health Department in a printed form asks the parents of school children, "Do you consent to having your child vaccinated by the school doctor?"

It might be a good thing to have a specific statute compelling vaccination of all children in the state before they are six months old, but there is just as much law in favor of vaccination now as there was ten, twenty, or thirty years ago. If we had a compulsory vaccination law there would then be few to come up and ask to be vaccinated. Someone must keep the matter constantly before the unvaccinated and that is a privilege of the Health Department,—we think it is one of their duties. The general practitioner has responsibilities in the premises also and he rarely urges vaccination as he should, except in the presence of smallpox.

It is now more than a hundred years since Edward Jenner dis-

covered vaccination and proved its protective power. Before the days of Jenner a grown person whose face was not marked by smallpox was rare the world over; now, thanks to vaccination, a pock-marked face is the exception the world over. Vaccination is more broadly and more generally accepted than any other idea that prevails among men. It is more generally accepted than the Christian religion, and this we say with reverence. There are millions who have not yet accepted the religion of Christ. Yet there are few who will apply to the Health Department or to a physician for vaccination voluntarily. Vaccination is one of the things that must be pushed upon people, and it should be pushed continuously and not neglected until someone dies of smallpox, a community are placed in peril of their lives, and even commerce is put in jeopardy.

Smallpox is practically the only disease that we know how to prevent under all circumstances. It can be permanently eradicated from the world, and, as we said above, its existence is a reflection upon our civilization.

MUDLAVIA.

Dr. George F. Butler, well known in Chicago as a skilled practitioner, a scholarly writer upon medical topics, and a successful executive in institutional work, has consented to accept the directorship of the Mudlavia establishment at Kramer, Indiana. The reputation of Mudlavia, in common with other health resorts, has suffered from the indiscriminate bathing or drinking of water. Hot baths of all sorts are supposed to eliminate harmful waste products retained in the tissues, but as they at the same time eliminate a proportion of the useful salts, their use as a curative agent should be guarded with the greatest care.

Dr. Butler is to have full control of all treatment, is to be equipped with a good laboratory and up-to-date appliances for aiding the sick, and is to be given such skilled assistants as he may need. All health resorts give their patrons the benefit that any outing can give, but the patrons of Mudlavia will now have the advantage of scientific diagnosis and scientific treatment whatever their ailment may be.

Book Reviews

MODERN TREATMENT. The Management of Disease with Medicinal and Non-Medicinal Remedies. In Contributions by American and Foreign Authorities. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica, Jefferson Medical College, Philadelphia. Assisted by H. R. M. Landis, M. D., Director of the Clinical Department of the Phipps Institute. In two Volumes. Illustrated. Lea & Febiger, Philadelphia.

We are satisfied that these splendid contributions of many able men are not sufficiently well known among the rank and file of the profession. Here we have two large volumes on Modern Treatment, written by most competent authorities, giving the best results of their vast experience in what to do and what not to do in every conceivable form of illness. We know of no better reference books to go to, as every article is up-to-date and every page is worth a careful study. We most earnestly commend these books to every practicing physician, be he young or old in the profession, as no one can fail to learn and profit much by consulting and reading its pages. We further venture to say that any one troubling to take a look at these books at some medical bookstore will promptly conclude that he cannot afford to be without them.

In the wealth of material contained in these two volumes, we can only give a very brief outline of some of their contents. Volume I, Part I, treats of modern pharmacology, combination of drugs and untoward effects, by Horatio C. Wood, Hunsberger and Rudolf. Part II, on the treatment of disease by non-medicinal measures, such as climate, exercise, hydrotherapy, electrotherapeutics, X-rays, serum therapy, opsonins and tuberculin, by Barlow, Baruch, Price, Dercum, Park and others. Part III, the treatment of infectious diseases, by a number of authors, among whom we may mention, Riesman, Hubbard, Dunn, Meara, Royer, Thomas Wright Jackson. Volume II, Part I, treats of treatment of diseases due to parasitic infection, by Craig, Gottheil and Rhoads. Part II, treatment of diseases of the circulatory system, by Mackenzie and J. C. Da Costa. Part III, digestive system, by Sailer and Moffitt. Part IV, treatment of the respiratory system, by Fetterholf and Newlin. Part V, nutritive and diathetic diseases, by Joslin and Beebe. Part VI, treatment of diseases of the nervous system, by McCarthy, Lloyd, Harris, Shanahan, and Dercum. Part VII, genito-urinary apparatus, by Tyson and

Auspach. Part VIII, treatment of skin diseases, by Howard Fox. Part IX, non-surgical treatment of eye diseases, by Thorington, and the concluding Part X on the treatment of ear diseases, by S. MacCuen Smith.

HANDBOOK OF DISEASES OF THE RECTUM. By Louis J. Hirschman, M. D., President of the American Proctologic Society, Lecturer on Rectal Surgery and Clinical Professor of Proctology, Detroit College of Medicine. Revised and rewritten second edition. 338 pages. Royal Octavo—172 illustrations—including four colored plates. Price, \$4.00.

It is a fact that the inattention of the regular practitioner to rectal disease has been a great harvest to the irregular quacks and advertising rectal specialists. We therefore welcome the second edition of Hirschman's book on these diseases, dealing largely with the more common forms which the general practitioner is apt to meet, such as constipation, pruritus ani, anal fissure and hemorrhoids, etc. A very instructive chapter deals with the technic of local anesthesia, and how to modify it in various lesions. We also commend an excellent chapter on the feces and their clinical examinations. This edition has been thoroughly revised, new diagnostic methods have been added, many new illustrations are found, and we take pleasure in recommending this book to every student and general practitioner.

UROLOGY. The Diseases of the Urinary Tract in Men and Women. A Book for Practitioners and Students. By Ramon Guiteras, M. D. (Harv.), Professor of Genito-Urinary Surgery, New York Post-Graduate Medical School; Visiting Surgeon to the Columbus and Post-Graduate Hospitals; Consulting Surgeon to the City and French Hospitals; Member of the American Medical Association, The American Urological Association, The French Urological Association, etc., etc. With Nine Hundred and Forty-Three Illustrations in Text and Seven Plates. In Two Volumes. New York: D. Appleton & Company. 1912.

This is a very complete and authoritative work on urology. The well known author has in a most painstaking manner covered the whole range of diseases of the urinary tract in men and women, and gives us a book that will at once take its rank as a standard work. No detail has been omitted. In the same manner as he has dedicated his book to his twelve teachers, Henry J. Bigelow, Theodor Billroth,

Finger, Guyon, James E. Kelly, Morrow, Otis, Sturgis, Taylor, Ultzman, Von Dittel and Von Bergman, so he has incorporated their teachings and his own vast experience in these two volumes before us. The first volume is preparatory to the second. It treats of the anatomy of the urinary and genito-urinary tract in men and women, treats in detail of all laboratory methods for the examination of the urinary discharges, blood, etc. The whole technique of instrumentation is thoroughly considered, with special attention to the urethroscope and cystoscope. Chapters on how to examine patients, necessary office furniture and equipments, urological therapeutics, methods of examining the kidney, and various affections of the kidneys and ureters are well treated.

Volume II contains the clinical and operative section. The various diseases of the kidneys, ureters, bladder, prostate, urethra and the male generative organs are gone into in a comprehensive though concise manner. A chapter on lues concludes this book. There are nearly one thousand good illustrations in this book to elucidate the text. We believe these volumes mark a distinct advance in the subject of urology and we earnestly recommend Guiteras' work to every medical man interested in this department of surgery.

TEXTBOOK OF OPHTHALMOLOGY. In the Form of Clinical Lectures.

By Dr. Paul Roemer, Professor of Ophthalmology at Greifswald. Translated by Dr. Matthias Lanckton Foster, Member of the American Ophthalmological Society; Member of the American Academy of Ophthalmology and Oto-Laryngology. With One Hundred and Eighty-Six Illustrations in the Text and Thirteen Colored Plates. Volumes II and III. New York: Rebman Company. Price, \$2.50 each. When the present small issue of this work in three volumes is exhausted, the work will be bound in one volume, cloth, of which the price (\$7.50) will be the same.

The reading of Volumes II and III in this textbook but serves to corroborate our former favorable criticism of its great value for textbook purposes, as a system. Improvements in diction are to be noted in these two volumes, and a completeness which should make the series invaluable in practice as well as in teaching.

The acknowledgement of the benign influence of tuberculosis in causing scleritis is of interest in view of the fact that no such possibility was admitted in the consideration of the etiology of phlycten-

ular conjunctivitis, and these conditions are pathologically (at least) identical. In the consideration of muscle balance the nomenclature of Stevens is adopted, for which American ophthalmologists should be grateful.

W. W.

MENDEL'S PRINCIPLES OF HEREDITY. By W. Bateson, M. A., F. R. S., B. M. H., Honorary Fellow of St. John's College, Director of the John Innes Horticultural Institution. Cambridge: at the University Press. New York: G. P. Putnam's Sons. 1913. Price, \$3.50 net.

A most interesting scientific study of discoveries in regard to heredity made by the application of Mendel's method of research. As the author well states, the study of heredity has become an organized branch of physiological science, already abundant in results, and in promise unsurpassed. Among them we must foresee not merely advances in the art of breeding animals and plants, but a control over the destiny of our own species. It behooves us then as physicians to take deep interest in these correlated branches of scientific knowledge.

This third edition shows how rapid has been the progress of Mendelian analysis. It deals with heredity of color, heredity and sex, gametic coupling and spurious allelomorphism, double flowers, evidence as to Mendelian inheritance in man, biological conceptions in the light of Mendelian discoveries and practical application of these principles. An appendix contains a biographical notice of Mendel and translation of his papers on hybridization and *hieracium*. The work is beautifully illustrated.

SLEEP AND THE SLEEPLESS. By Joseph Collins, M. D., Physician to the Neurological Institute of New York. Sturgis & Walton Company, 31 East 27th Street, New York. Price, \$1.00 net.

Dr. Collins with his well known vivacity and charm of style has presented for the lay mind the subject of sleeplessness most acceptably. There are few conditions which are more prevalent or that are associated with more misinformation, and the thousand remedies suggested by well-meaning friends number many that are noxious and dangerous. The insomniac, as the author names him, might better first—according to the plan of this book—learn something about the function and physiology of sleep, sleep habits and sleep necessities, and then of the simpler measures for securing it. It is a book which can be recommended to one's patients with an unusual degree of

satisfaction, but is one which like other books of a quasi-medical nature is also likely to be misinterpreted by them.

MUSCLE TRAINING IN THE TREATMENT OF INFANTILE PARALYSIS.

By Wilhelmine G. Wright, Boston Normal School of Gymnastics, 1905. Reprinted from the Boston Medical and Surgical Journal, Col. clxvii, No. 17, pp. 567-574, Oct. 24, 1912. Price, 25 cents. W. M. Leonard, Publisher, Boston, Mass.

The demand for light upon this subject exhausted the file of the Journal in which it was printed and has led Dr. R. W. Lovett and the Medical Journal to re-issue the article in form of a thirty-two page reprint at the nominal price of twenty-five cents. The directions given are explicit and make the reprint not only of great value, but practically the only set of definite directions in the treatment by exercise of conditions following paralysis.

THE SURGICAL CLINICS OF JOHN B. MURPHY, M. D., at Mercy Hospital, Chicago. Volume II. Number I. (February 1913.) Octavo of 179 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Published Bi-Monthly. Price per year. Paper, \$8.00. Cloth, \$12.00.

This number begins the second volume of the Murphy Clinics, which met with such immediate and remarkable success during their first year of publication. It opens with an interesting account of an address and operation by Mr. W. Arbuthnott Lane, of London, at Dr. Murphy's clinic, November 23, 1912, on the Open Treatment of Fractures. Other interesting subjects in this number are Osteitis of Femur; Paget's Disease, Amputation of Breast; Congenital Pyloric Stenosis; Cerebral Adhesions (Decompression), etc. There is also the report of an address delivered at Dr. Murphy's Clinic on October 21, 1912, by Dr. W. C. Woodward, Health Officer of the District of Columbia, on Medicolegal Relations of Physician and Patient.

News Items

For Rent.—Office hours in very desirable rooms in physicians' suite. Room 705, 15 East Washington street, Venetian building, Chicago.

For Rent.—To sub-lease with liberal concession, room with all modern improvements, 9x22, in elegant private suite. Address M 5, care of CHICAGO MEDICAL RECORDER, 804 Pullman building.

Chicago Medical Book Company.—The downtown branch of the Chicago Medical Book Company, now in the Trude building, will occupy quarters on the eighteenth floor of the Heyworth building after the 18th inst.

For Rent.—A very pleasant and large office, fully equipped, including light, telephone, office attendant, etc. Can be rented for the whole day or any hours desired. Apply to Dr. M. L. Sterne, 1124 Republic building, State and Adams streets.

Wanted.—A physician to do clerical work in the medical director's office of a life insurance company. Must be a rapid typist. Services to begin in late spring. Address "B." care of Medical Recorder Publishing Company, 804 Pullman building, Chicago.

Wanted.—Young medical student or doctor to correspond with us about a new way of money and friends making in the health and efficiency promoting line. Address Geo. A. Schmidt (IT) Co., 236-238 North avenue, Chicago. Established 1875.

Personal.—Dr. and Mrs. Hugh T. Patrick have gone to Europe, where they will remain for some months.

Dr. and Mrs. Casey A. Wood are taking a six weeks' trip to southern California.

Dr. and Mrs. Junius C. Hoag are on a cruise to the West Indies and Panama.

First Lieutenant Frank Billings, Medical Reserve Corps, U. S. A., has been placed on active duty by order of the Surgeon General, U. S. Army, and directed to proceed to Washington, D. C., to deliver a course of lectures at the War College this month.

Dr. Jacob Frank has been commissioned major M. C., Ill. N. G., and assigned to duty as secretary to the surgeon-general.

Dr. John Ridlon's resignation from the faculty of Rush Medical College, which was tendered a year ago last June, has at last been recommended to the trustees for acceptance.

Dr. H. Gideon Wells, of the University of Chicago, spoke on Chemistherapy of Tuberculosis at the first meeting of the Tuberculosis Study Circle of the Chicago Tuberculosis Institute, which took place on February 11 at the City Club.

Dr. and Mrs. Arthur R. Reynolds have been spending the winter in the South. They are now at Tampa, Fla.

Transfer to University of Illinois.—On Thursday afternoon, March 6, the College of Physicians and Surgeons of Chicago was formally

transferred to the trustees of the University of Illinois, and will henceforth be conducted as an integral part of the University.

Chicago Vice Commission Report.—The special edition of this valuable report is not sold through the bookselling trade but is published solely to meet the needs of students of social problems and libraries. Write for card of conditions to American Vigilance Association, 105 West Monroe street, Chicago.

For Rent.—Office hours in a newly finished and furnished suite. Large or small room. One large consultation room with operating room (light or dark) and rest room adjoining for morning hours. Particularly desirable. Attendant furnished. Rent very moderate. Dr. John L. Porter, 7 West Madison street, suite 907.

Dr. Frank H. Blackmarr desires to announce his return to office and hospital practice of Electro-Therapeutics—X-ray Therapy, Radium Therapy, X-ray Laboratory for rapid work. Office hours: 935 Marshall-Field building, 8:30 a. m. to 9:30 a. m., telephone Private Exchange 1; 551 East Forty-seventh street, 11 a. m. to 3 p. m., telephone Oakland 1719.

From the Sarasota News, Sarasota, Fla.—"Dr. and Mrs. Arthur R. Reynolds, of Chicago, are the guests of Dr. Bishop. Dr. Reynolds was health commissioner of Chicago for some time, and is an authority on conditions pertaining to the prolongation of life. He says a person taking ordinary care of themselves should live in Sarasota until they were ashamed of themselves."

The Mulford Digest.—H. K. Mulford Company announce that they have undertaken the publication of a periodical devoted to serum therapy, bacterin therapy, vaccine therapy, immunization, and drug standardization. The Digest aims to gather and to epitomize the conclusions of the world's scientific and professional workers in laboratory research, therapeutics, clinical and preventative medicine, included in the subjects mentioned above, and should prove interesting to physicians as presenting the latest and most trustworthy results of the progress now making in these fields of medical research.

Chemists and Bacteriologists Wanted.—The Illinois State Civil Service Commission will hold examinations at various points on April 5, 1913, to provide eligible lists for

CHEMIST in laboratory of State Food Commission, Chicago. Salary, \$100 to \$150 per month. Must be familiar with methods used in analysis of food stuffs.

BACTERIOLOGIST for State Board of Health, Springfield. Salary, \$150 to \$175 per month. Questions cover training and experience. Will refer particularly to bacteriology of contagious and infectious diseases.

BACTERIOLOGIST for State Food Commission, Chicago. Salary, \$150 to \$175 per month. Examination will refer particularly to bacteriology as applied to food stuffs.

Applications will be received from men over 21, women over 18. Must be citizens of United States. For detailed information, write W. R. Robinson, Chief Examiner, Springfield, Ill.

Instructor for Miraj Medical School—A teacher of physiology, chemistry, physics, biology and bacteriology is needed to work in connection with the Presbyterian Mission Hospital Medical School and Leper Asylum at Miraj, West India. A man who has a knowledge of X-ray work is preferred. This hospital is under the direction of Dr. W. J. Wanless.

The medical graduate who is appointed to this position will have opportunities for practice as an assistant in medicine and surgery, though the major part of his time will be taken up with teaching.

A man who is looking forward to permanent service as a medical missionary, and who proves satisfactory in this position, would have opportunity for locating permanently if he desired to do so.

Traveling expenses and living quarters are provided in addition to \$50 monthly salary. The terms: A three year appointment with the privilege of renewal of contract with two or three additional years, if mutually agreeable.

Christian men who wish to investigate this opening should send full particulars regarding their qualifications to Mr. Wilbert B. Smith, 600 Lexington avenue, New York City.

Congress of American Physicians and Surgeons.—The following preliminary program has been announced for the ninth meeting of the Congress of American Physicians and Surgeons, to be held in Washington, D. C., May 6th and 7th. The meetings of the congress will be held in the assembly room of the New Willard hotel.

Tuesday, May 6, 1913, 2:30 p. m. The congress will be opened by the president. Subject to be considered: "On the Study of Renal Function." Papers will be read by Prof. Carl Schlayer of Munich, Germany, and Dr. Leonard G. Rowntree of Baltimore. 8 p. m. Address by the president of the congress, William C. Gorgas, M. D. "Sanitation at Panama as It Relates to Sanitation in the Tropics Generally." To be followed by a reception.

Wednesday, May 7, 1913, 3 p. m. Subject to be considered: "On the Development of Tissues in Vitro." Other papers will be as follows: "The Life of Tissues Outside the Organism from the Embryological Standpoint," by Dr. Ross G. Harrison of Yale University; "The Life of Tissues Outside the Organism from the Physiological Standpoint," by Dr. Montrose T. Burrows of Cornell University Medical College; "The Life of Tissues Outside the Organism from the Pathological Standpoint," by Dr. Robert A. Lambert of the College of Physicians and Surgeons, Columbia University.

Historical Medical Exhibition, London, 1913.—Among other historical medical objects of exceptional interest that have been secured for the Historical Medical Exhibition, organized by Mr. Henry S. Wellcome, and which will be opened in London during the meeting of the International Medical Congress in the coming summer, are many personal relics of Dr. Edward Jenner, the discoverer of vaccination. These include the original lancets and scarifiers he employed during his first experiments, his case and account books, his snuff box, medicine chest and many other interesting articles. A large collection of autograph

letters of Jenner's, some of unique interest, have also been loaned, together with the armchair from his study and in which he died. Other objects connected with the life of Jenner are also to be exhibited, including many valuable portraits of himself and family, painted at different periods, the illuminated addresses presented to him together with the freedoms of the cities of London and Dublin, also medals, and other documents of special interest.

Concerning the history of anaesthesia, many interesting relics are to be exhibited beginning with the original autograph journal and manuscripts of Henry Hill Hickman, F. R. C. S., the discoverer of the application of the principle of anaesthesia by inhalation for surgical operations, which he proved by actual experiments on animals in 1823. Personal relics of Sir James Simpson, and some of the earliest forms of apparatus for administering chloroform and ether will constitute an exhibit of more than usual interest.

Those who may possess any objects of a similar character connected with the history of medicine and the allied sciences, and who would be willing to loan them, should communicate with the secretary, 54A Wigmore street, London, W., England, who will be pleased to forward a complete illustrated catalogue to anyone interested.

Guarding Health of Workers.—The subject of medical examination of employes was discussed at a joint meeting of the Committee on Factories of the Chicago Tuberculosis Institute and representatives of various firms in Chicago at the City Club, on February 19.

It was universally agreed that the system of medical examination of the health of employes tends to production of greater efficiency on the part of the entire working force and especially benefits the employe by the detection of disease at the time when the disease is curable.

It was also the general sense of the meeting that a systematic medical supervision will be generally established.

One agency that will materially help to bring this about will be the extension of employers' liability laws throughout the country.

There were representatives at this meeting from the following firms.
International Harvester Company.

Sears, Roebuck & Company.

Chicago Telephone Company.

Montgomery, Ward & Company.

Swift & Company.

Marshall Field & Company.

Mandel Brothers.

Hillman's.

Rothschild & Company

The Fair.

C., B. & Q. R. R.

Illinois Steel Company.

Hibbard, Spencer, Bartlett & Co.

Crane Company.

The Committee on Factories of the Chicago Tuberculosis Institute consists of Dr. Theodore B. Sachs, chairman, Dr. Henry B. Favill, Mr. Sherman C. Kingsley and Mr. James Minnick, secretary.

It is the intention of this committee to hold regular monthly meetings with representatives of various firms. The next meeting will be on March 19, and subjects for discussion will be:

1. What constitutes an efficient medical examination?
2. What can be done for employes needing institutional care who cannot pay?

New Plans for Mudlavia.—The Medical Department, the most important at Mudlavia, will be under the direction of Dr. Geo. F. Butler, who, at home and abroad, is well known for his skill in diagnosis and treatment and for his books on therapeutics, public health and sex hygiene.

For the past year Dr. Butler has been county physician to Cook county. He has had direct charge of the Chicago Detention Hospital for the Insane and has held the post of medical adviser to the Board of County Commissioners. Aside from his public duties, Dr. Butler is professor and head of the department of therapeutics and professor of preventive and clinical medicine in the Chicago College of Medicine and Surgery. In accepting the position of medical director of Mudlavia he will free his time from all professional work in Chicago, although he will continue his college work, fill his lecture engagements and maintain his important duties as contributor of several medical publications.

He has been fully consulted in the whole formulation of the plans toward placing Mudlavia in the front rank of scientific medical sanitariums, and in his hands rests the selection of an able staff of associates.

The general plan includes every phase and department of up-to-date, scientific diagnosis and therapy. Dr. Butler's purpose will be to treat each case upon its individual merits; treatment will not be routine but based upon individual conditions, once those conditions are determined, giving each case whatever treatment will most directly apply.

This perfect medical system, in direct charge of so competent a man as Dr. Butler, will commend itself at once to physicians having difficult or obdurate cases that need special care in perfect surroundings. The buildings are ample and very handsome, with none of the atmosphere of invalidism which operates so depressingly in most health resorts. The self-examining valetudinarian will find his mind diverted to external things in an environment of hopefulness and optimism.

Chicago is only a few hours away and everything a great city affords can be had without racking annoyance of crowds. It should be so with any health resort; it is so with very few; with Mudlavia it is basal. It is necessary first to be free of the obtrusion of illness, visually or by atmosphere or suggestion. In that enfranchisement of thought and feeling the physician's work begins to tell at once and helps itself to build toward successful issues. In this aspect the choice of Dr. Butler is wisely happy, for his nature is genially sympathetic and his felicity of thought and expression are noted in his literary output.

The best condensed information concerning Dr. Butler is given in

"Who's Who in America," and from the last edition of this select publication the following is taken:

"George Frank Butler, physician, author. Lecturer on medical pharmacy and materia medica, Rush Medical College, 1889-02; professor bacteria medica, therapeutics and clinical medicine, Northwestern University Women's Medical School, 1890-6; College of Physicians and Surgeons, Chicago, 1892-1906; professor medicine, Dearborn Medical College, 1905-7; professor internal Med., Chicago Post-Graduate Med. School, 1905-7; medical superintendent Alma Springs Sanitarium, Alma, Mich., 1900-5; professor and head of the department of therapeutics and professor of clinical and preventive medicine, Chicago College of Medicine and Surgery (Valparaiso U.) since 1906; president faculty and professor diseases of kidneys and nervous system, Practitioners' College, Chicago, 1910; consulting physician to Cook Co. and Frances Willard hospitals; county physician Cook County, Ill., since Nov., 1911. Member of A. M. A., Am. Academy of Medicine, Am. Therapeutic Society, Michigan State Med. Soc., Ill. State Med. So., Chicago Med So., Physicians' and Therapeutic clubs; fellow Chicago Acad. of Medicine. Clubs: Press, City, Cliff Dwellers, Prosperity, Wilmette Country. Author: *Text-book of Materia Medica, Therapeutics and Pharmacology*, 1896; *Love and Its Affinities*, 1890; *Materia Medica and Therapeutics (Practical Medicine Series of Year Book)*, 1892; *The Isle of Content*, 1902; *The Exploits of a Physician Detective*, 1907; *Sonnets of the Heart*, 1909; *Treasures of Truth*, 1909; *Echoes of Petrarch*, 1912; *Every Boy's Book and Every Girl's Book*, 1912."

LINES TO A FREUDIAN.*

BY CHARLES B. REED.

Who is it that believes a star
Controls our fortunes from afar,
Afflicts at will with pest or war,
And future states may make or mar;
Who is this wight crepuscular?
The Astrologer.

Who is it takes the atom man
And, like Haruspices, will scan
His dreams and figments protean,
From which to disinter the plan
Used by the Heavenly Artizan?
The Neurologer.

Yet who, with injudicious maw
Gulps all chimeras rank and raw,
The Bugaboo and Bogie's claw
Goblins, Ghouls and Succuba,
But scouts the truths of cosmic law?
Hal Moyer.

*The above is the reply made by Dr. Reed to certain objections raised by Dr. Moyer to his toxin theory.

GRAND RAPIDS
PUBLIC LIBRARY

Special
Souvenir Number
OF THE
CHICAGO MEDICAL
RECORDER

APRIL 1913

The Complete Addresses and Photographs

of the twenty Ex-Presidents and Speakers at the Chicago Medical Society banquet, held at the Sherman House, February 12, 1913, together with a History of the Society, by Dr. E. Gillmore, have been bound in this special issue of **THE CHICAGO MEDICAL RECORDER** and sent every member of the Society with the Compliments of the Speakers and their Toastmaster.

Banquet

Given by

The Chicago Medical Society

in honor of its

Ex-Presidents

February twelfth, nineteen hundred thirteen

Sherman House

ORGANIZERS OF THE SOCIETY, according to "Brief History of Medical Societies in Chicago," by Nathan S. Davis. "Prepared in accordance with a vote of this society passed March 26, 1863."

"This then is the child, however, he may turn out, which you and I have with difficulty brought into the world, and now that he is born we must run round the hearth with him and see whether he is worth rearing or only a wind-egg and a sham."

"As Depicted by Plato." Plato's Dialogues, IV.

Quoted by WILLIAM OSLER, M. D.

NATHAN S. DAVIS, M. D.

DAVID RUTTER, M. D.

HOSMER A. JOHNSON, M. D.

ERIAL McARTHUR, M. D.

LEVI D. BOONE, M. D.

WILLIAM B. HERRICK, M. D.

ALONZO B. PALMER, M. D.

In Memoriam

"One can not read their history * * without a glow of admiration for their lofty ideals, their steadfastness and devotion, and for their faith in their profession which they loved. The times have changed, conditions of practice have altered and are altering rapidly, but when such a celebration takes us back to your origin in simpler days and ways, we find that the ideals which inspired them are ours today—ideals which are ever old, yet always fresh and new."

On the Educational Value of the Medical Society.

WILLIAM OSLER, M. D.

ORGANIZED AS THE CHICAGO MEDICAL SOCIETY IN 1850.

LEVI D. BOONE, M. D. 1850-'51 WILLIAM B. HERRICK 1851-'52

REORGANIZED AS COOK COUNTY MEDICAL SOCIETY, APRIL 5, 1852

ERIAL McARTHUR, M. D. 1852-'53 WILLIAM B. HERRICK, M. D. 1853-'54
NATHAN S. DAVIS, M. D. 1854-'55-'56 DE LASKIE MILLER, M. D. 1856-'57
NATHAN S. DAVIS, M. D. 1857-'58

RESTORED TO ITS ORIGINAL NAME: CHICAGO MEDICAL SOCIETY, AUG. 3, 1858

ALEXANDER FISHER, M. D. 1858-'59	IRA HATCH, M. D. 1861-'62
ORREN SMITH, M. D. 1860-'61	GERHARD C. PAOLI, M. D. 1863-'64
SWAYNE WICKERSHAM, M. D. 1862-'63	THOMAS BEVAN, M. D. 1865-'66
MILLS O. HEYDOCK, M. D. 1864-'65	JOSEPH P. ROSS, M. D. 1867-'68
ABRAHAM GROSBECK, M. D. 1866-'67	ROSWELL G. BOGUE, M. D. 1869-'70
EUGENE W. MARQUERT, M. D. 1868-'69	JOHN REID, M. D. 1871-'72
THOMAS DAVIS FITCH, M. D. 1870-'71	GERHARD C. PAOLI, M. D. 1872-'73
W. GOODFREY DYAS, M. D. 1873-'74	WILLIAM E. CLARK, M. D. 1875-'76
EPHRAIM INGALS, M. D. 1876-'77-'78-'79	EDMUND ANDREWS, M. D. 1879-'80
ROSWELL G. BOGUE, M. D. 1880-'81	EPHRAIM INGALS, M. D. 1881-'82
JOHN H. HOLLISTER, M. D. 1882-'83	CHARLES T. PARKES, M. D. 1885-'86
JAMES H. ETHERIDGE, M. D. 1888-'89	ALBERT E. HOADLEY, M. D. 1889-'90
DANIEL R. BROWER, M. D. 1891-'92	FERDINAND C. HOLTZ, M. D. 1892-'93
CHARLES W. EARLE, M. D. 1893-'—	NICHOLAS SENN, M. D. 1894-'95
FERNAND HENROTIN, M. D. 1897-'98	CHRISTIAN FENGER, M. D. 1901-'02
DANIEL D. WAITE, M. D. 1859-'60	ALEXANDER H. FERGUSON, M. D. ... 1910-'11

Ex-Presidents

Chicago Medical Society

1874-1912

WILLIAM E. QUINE, M. D.
1874-1875

DAVID W. GRAHAM, M. D.
1883-1884

DANIEL A. K. STEELE, M. D.
1884-1885

EDMUND J. DOERING, M. D.
1886-1887

WILLIAM T. BELFIELD, M. D.
1887-1888

FRANK BILLINGS, M. D.
1890-1891

LEWIS L. McARTHUR
1895-1896

HAROLD N. MOYER
1896-1897

ARTHUR DEAN BEVAN, M. D.
1898-1899

JUNIUS C. HOAG, M. D.
1899-1900

JAMES H. STOWELL, M. D.
1900-1901

WILLIAM A. EVANS, M. D.
1902-1903

ROBERT B. PREBLE, M. D.
1903-1904

JOHN B. MURPHY, M. D.
1904-1905

CHARLES C. BACON, M. D.
1905-1906

GEORGE W. WEBSTER, M. D.
1906-1907

HENRY B. FAVILL, M. D.
1907-1908

ALFRED C. COTTON, M. D.
1908-1909

JOHN A. ROBISON, M. D.
1909-1910

JOSEPH M. PATTON, M. D.
1911-1912

Officers of the Chicago Medical Society

JACOB FRANK, M. D., President.
P. J. HOSHIE FARRELL, M. D., Secretary.
JOHN S. NAGEL, M. D., Treasurer.

Entertainment Committee

ROBERT T. GILLMORE, M. D., Chairman.
CAMILLO VOLINI, M. D. STEPHEN R. PIETROWICZ, M. D.
CHARLES P. CALDWELL, M. D. C. PRUYN STRINGFIELD, M. D.
EDGAR M. WEBSTER, M. D. EMIL RIES, M. D.
JAMES A. CLARK, M. D. OTTO S. PAVLIK, M. D.
CHARLES C. O'BYRNE, M. D.

Reception Committee

Presidents and Secretaries Branch and Affiliated Societies

JOSEPH PRENNENMANN, M. D., Chairman.
WILLIAM M. THOMPSON, M. D. ALBERT W. SEIDEL, M. D.
NOBLE M. EBERHART, M. D. JOHN M. JACOBS, M. D.
WILLIAM G. ALEXANDER, M. D. WALTER C. JONES, M. D.
JACOB C. KRAFFT, M. D. HARRY W. WARDLE, M. D.
JOHN W. VIERS, M. D. FRED L. GLENN, M. D.
WILLARD W. DICKER, M. D. FRANK J. FARA, M. D.
JOSEPH L. ART, M. D. HUGO E. BETZ, M. D.
THEODORE JOHNSTON, M. D. C. HUBERT LOVEWELL, M. D.
ARTHUR G. BOSLER, M. D. ERNEST L. LACKNER, M. D.
WILLIAM D. NAPHEYS, M. D. CHARLES F. SWAN, M. D.
FRANK H. STEVENSON, M. D. OTTO J. DEWITZ, M. D.
PAUL E. KELLY, M. D. CHARLES C. CORD, M. D.
NEWELL C. GILBERT, M. D. RAYMOND C. LIBBERTON, M. D.
OLOF OLSON, M. D. RUDOLPH W. HOLMES, M. D.
CHARLES DAVISON, M. D. WILLIAM R. CUBBINS, M. D.
EDWIN W. RYERSON, M. D. CHARLES M. JACOBS, M. D.
EDWARD C. ROSENOW, M. D. GEORGE H. WEAVER, M. D.
JOSEPH C. BECK, M. D. OTIS H. MACLAY, M. D.
THOMAS FAITH, M. D. RICHARD J. TIVNEN, M. D.
OTTO H. FOERSTER, M. D. ERNEST L. McEWEN, M. D.
FRANK X. WALLS, M. D.

Ladies Reception Committee

MRS. ALFRED J. OCHSNER, Chairman.
RACHELLE S. YARROS, M. D., President West Side Branch.
MRS. GEORGE EDWIN BAXTER MRS. WILLIAM PARSONS
EFFA V. DAVIS, M. D. MRS. ARTHUR M. CORWIN
EFFIE L. LOBDELL, M. D. IRENE R. PRATT, M. D.
MRS. FRANKLIN MARTIN MRS. ALLEN B. KANAVEL
MRS. CLYDE D. PENCE MARY G. McEWEN, M. D.
MRS. J. CHARLES HEPBURN MRS. CHARLES J. WHALEN
MRS. J. WARREN VANDERSLICE MRS. CARL BECK
MRS. EDWIN B. TUTEUR MRS. ROBERT A. KROST



Society with a picture of Dr. N. S. Davis, Sr., and in connection with its presentation made the following remarks:

Mr. President, Guests and Members of the Chicago Medical Society.

Of all the methods adopted by artists for perpetuating the memory of those who have acquired distinction in any department of human activity, none is more pleasing to the majority of intelligent men and women than correct portraits that present, not only the contour, but also much of the living expression of those they represent; consequently, a large proportion of the higher educational institutions and permanently organized scientific, philosophic and professional organizations, seek to preserve the portraits of their founders and more distinguished members as a part of their permanent archives.

In the hope of initiating work in this part of the archives of the Chicago Medical Society, I had a portrait painted of one of its most illustrious ex-presidents for the purpose of presenting it to the Society at an opportune moment. That moment has arrived, and I have come prepared to present, for your acceptance, the portrait of one whom you will all recognize as one of the founders of this Society, and for many years one of its most constant and faithful guides in every department of its work; one who did more, perhaps, than any other individual to promote the efficient social organization of the medical profession throughout the United States and in elevating the standard of medical education; one who was a pioneer investigator in the department of physiology, hygiene, preventive medicine and medical journalism; one who was an untiring and valuable contributor to medical science and literature, and who enjoyed the highest official honors that his profession could bestow, president of the American Medical Association, of the Ninth International Medical Congress, and of the Chicago Medical Society; one who in this city organized the first permanent general hospital and established clinical instruction therein, and who was one of the founders and active supporters of the Chicago Relief and Aid Society for aid to the poor, of the Chicago Academy of Sciences, the Chicago Historical Society, and the Chicago Medical Society; one who was a life-long advocate and exemplar of temperance, morality and religion; who until near the close of his earthly existence devoted from five to six hours daily to his patients, and attended promptly to all duties of good citizenship in strict obedience to his favorite maxim, "He is most happy who is contributing most to the happiness of others."

Now, Mr. President, I have the honor of unveiling the portrait of the late Dr. N. S. Davis, the subject of these remarks, and trust that its acceptance will carry with it the appointment of a committee to secure (without cost to the Society) the portraits of all ex-presidents of the Chicago Medical Society. (Applause.)

President Frank, in accepting the picture in behalf of the Chicago Medical Society, said:

Dr. Pennington, Ladies and Gentlemen: It is an unexpected and pleasant surprise to receive the oil painting of one of the founders of our Society, Dr. Nathan Smith Davis, Sr., who has left us a rich inheritance with his immortal name. I accept his portrait in behalf of our Society with grateful thanks. (Applause.)

At 9.45, when the cigars were being passed around, the toastmaster rapped for order, and, as soon as quiet was restored, he spoke as follows:

Honored Ex-presidents, Members of the Chicago Medical Society, Friends: It is a rare privilege and honor, indeed, to welcome this evening, in behalf of the Chicago Medical Society, twenty of our esteemed ex-presidents. Sitting here to the right and left are men who have no peers in our profession in either this or any other country. (Applause.) These men, who we are proud in honoring tonight, represent thirty-eight years of marvelous progress made in the science of medicine and surgery. In honoring these gentlemen who have at various times presided over our great organization and have given generously of their time and talent to its upbuilding, we certainly do honor to ourselves.

The harmony and good feeling that prevail, and which are evidenced by this great assembly, prove beyond a doubt that the foundation upon which our Society was erected and has stood so nobly through calm and storm for sixty-three years, has been replaced by new modern concrete caissons which rest upon solid rock. (Applause.) Its friendships have been girded by the strongest of steel. A society constructed on these lines must last for all time. Let us then on this occasion forget the cares, worries and responsibilities that come with our chosen calling and all join in making this night and this gathering a glorious and memorable one in doing honor to our eminent past presidents. (Loud applause.)

(Three lusty hurrahs were given for the ex-presidents, who arose and bowed in acknowledgment of the ovation given them.)

I wish to announce to those who will stay until the end of the program, they will receive a souvenir at the door, which consists of a photograph of all of the living ex-presidents. (Applause.)

The Toastmaster: The first speaker of the evening has taught medicine in Chicago for forty-four years. He is devout in his profession and in his religion. Medical men have come from all quarters of the globe to listen to his masterful teaching. He served our Society as secretary. Its proceedings and many of the scientific papers were recorded by him in longhand. It is with extreme pleasure that I call upon the dean of the ex-presidents, Dr. Quine.

(Dr. Quine was received with loud and prolonged applause.)

DR. WILLIAM E. QUINE.

"The trust is, that medicine, professedly founded on observation, is as sensitive to outside influences, political, religious, philosophical, imaginative, as is the barometer to the changes of atmospheric density." (Oliver Wendell Holmes.)

Mr. Toastmaster, Members and Friends of the Chicago Medical Society. One of the infirmities of age is garrulity, and the toastmaster, well aware of the fact, and of the relative strength of the propensity in the speakers of the evening, has privately conceded to me ten minutes and limited the others to three. (Laughter.)

If there is anybody in this great assemblage so stupid as to think that I can find a personal compliment in this demonstration, let him take just one hard look at the twenty unfortunates seated at the speakers' table and then remember that I am put forward as the oldest specimen in the lot. (Laughter.)

Gaze upon them, Mr. Toastmaster. Do it again. And if you tell me that I am as old as some of those forlorn creatures look I shall then know that I have been dead a long time. (Laughter.)

This convocation of members and their wives has been announced as a demonstration in honor of the surviving ex-presidents of the Society; and naturally, sir, being the most distinguished of the group, I expected to be the focus of jealous and admiring eyes. But there is nothing in it, and my soul is sick with disappointment on finding that I am merely exploited as a relic of antiquity. (Laughter.)

This makes me anxious in another direction. It may be that the worst is yet to come, for I have abundant reason to know that demonstrations of this kind are liable to be followed by awful consequences.

There was Christian Fenger of beloved memory. He was honored in this way, but more grandly and more deservingly. And he died.

There was Nicholas Senn of immortal renown. He too was fêted by this Society—and he died.

Then there was the revered Nestor of the profession, N. S. Davis. He was fêted and he died.

Now, Mr. President, tell me true. In the name of God, tell me, is there any real ground for the suspicion that you are now aiming to assassinate this whole aggregation of bric-a-brac in one fell swoop. (Laughter.)

But let us pass to happier thoughts.

When I look back to the brief period immediately preceding and following the great Chicago fire which is covered by my small contribution to the history of this Society, my mind dwells on the good old fellows of that era. I experience feelings of blissful relief and of exaltation of spirit after contemplating the depressing remnant of their successors now seated at this table.

There were giants in those days. I was one of them. I was sure of that because I had just graduated from the county hospital and was twenty-three years of age. I did not know then that the number 23 had calamitous connections—but they appeared with shocking suddenness. And after a brief acquaintance in debate with the gentle meat-axe, N. S. Davis; and the ponderous trip-hammer, G. C. Paoli, and the sarcastic rapier, Swayne Wickersham, I retired from the giant business and have been in hiding most of the time since.

But a year later with chastened spirit, I presumed again to participate in a debate that was then going on, but was so unsuccessful that when I got through nobody knew which side I had been supporting. (Laughter.)

Then Wickersham arose with an exaggerated show of difficulty and reluctance and said:

"Willie's cat has kittened,
She kittened on Willie's bed;
Three of the kittens were black,
And three of them were red."

Then he sat down. (Laughter.)

The man converted the obtrusive youth into the diffident and shrinking veteran who is now speaking. But the revered fathers of the Society surely did the work of their day and they surely did leave a record of devoted service for us to emulate.

Eighteen of the twenty men in the honor list this evening are of their progeny—children of Davis, Johnson, Andrews, and Byford, of Bevan, Freer, Ephraim Ingals and E. L. Holmes, and others of that class, who exemplified professional ideals and standards of personal character, which have made us, poor and small in merit though we be, better than we could have been without them and have

prompted us to try to pass on as much as we could of the same kind of inspiration to the students who have been looking to us for guidance.

If any medical men ever lived in this community who have done more to uphold the honor and dignity of our profession than the worthies of whom I have spoken, I would be glad to learn their names. And with a heart full of a sense of personal indebtedness I make loving and reverent obeisance to their memory. (Loud applause.)

My connection with the Society began in the Spring of 1870, within sixty days after my formal start as a medical practitioner.

At that time the meetings were held in one of the rooms of the old Court House.

At the ensuing annual meeting Dr. William Godfrey Dyas was elected president, and thereafter, the meetings were held in Dr. Dyas' office in the Methodist Church block until the devastation of the great Chicago fire in October, 1871.

The next place of meeting was one of the parlors of the Gault House, a hotel located on part of the site now occupied by the C. & N. W. R. R. depot in the west division of the city.

The society continued to hold its meetings in these comfortable quarters for a couple of years, and then accepted the hospitality of one of its members, Dr. Theodore J. Bluthardt, and held its meetings in Dr. Bluthardt's office on the northeast corner of West Madison and Sangamon streets, until a year later it resumed its homeless wandering. At no time during this period was the Society under any expense whatever for rent, light, heat, or janitor service.

The meetings were held weekly, and the attendance was distinctly larger and included a larger number of the younger members, after the great fire, than there had been before.

The business of the meetings consisted of reading of formal essays, reports of cases, the exhibition of pathological specimens, and occasionally, of new instruments, and then conversations or debates on the topics of the evening consumed the remainder of the time.

The business was nearly always transacted with much spirit, but entirely without acrimony. There never was a dragging hour and never an adjournment on account of lack of a quorum or of lack of subjects of interest.

Before the fire the Society was supported by the middle-aged and elderly members of the profession exclusively. In the first year of my connection I think there were not more than three members under forty years of age. But after the fire, when meetings were held in

the west division of the city, the younger members were in the majority.

The organization was small but compact, and within rather narrow limits, it was vigorous.

No dissension over ethical problems or over strife for office ever disturbed a meeting, but no disposition was shown to reach into public service or to enlarge, by combined effort, the membership and the power of the organization.

There were no women members at this time, and the prejudice against women in the profession was strong.

The foremost supporters of the Society during this period of its history were N. S. Davis, who was easily the leader; R. G. Bogue, John Bartlett, William Godfrey Dyas, Joseph H. Freer, Ephriam Ingals, E. L. Holmes, Edmund Andrews, W. H. Byford, William E. Clark, Thomas Bevan, R. C. Hamill, T. D. Fitch, G. C. Paoli, V. L. Hurlbut and Swayne Wickersham, nearly every one of whom was a man of position and power; and a year or two later a younger class, consisting of C. W. Earle, D. W. Graham, J. M. Hutchinson, Charles T. Parkes, I. N. Danforth, E. Fletcher Ingals, D. A. K. Steele, and perhaps others whose attendance was less regular, began to push their way into the respectful recognition of their seniors.

These are the men who held things together immediately before and after the great fire, and who upheld and strengthened the professional ideals and moral standards which we now delight to honor.

Peace to the ashes of our fathers in medicine, and love and reverence. They left us a priceless legacy—for an ideal is the greatest asset possible for a physician to own. For this legacy we bless their names forever and forevermore. (Loud applause.)

THE TOASTMASTER: Our next speaker is familiarly known as "Daddy" Graham. He is not so ancient but that he can walk daily the wards of the Presbyterian Hospital as spry as a twenty-year-old. I have the honor to introduce to you Dr. David W. Graham. (Applause.)

DR. DAVID W. GRAHAM.

Mr. President, Fellow Members and Friends:

I understood that we were to be limited to three minutes in our remarks and that the text upon which we were to speak was to be something of the medical history pertaining to the times of our respective administrations as presidents of the Chicago Medical Society;

but if Dr. Quine could give so little of medical history in his ten minutes what can I do in three?

I was elected president of the Society in 1883 and I esteemed it a high honor. In the same year through the political influence of a friend I was appointed as one of the attending surgeons to Cook County Hospital, along with my right-hand man here, Dr. Steele. Also in that year I was promoted from the chair of anatomy to that of surgery in the Woman's Medical College as successor to Dr. John E. Owens. The Presbyterian Hospital was organized in 1883 and I became identified with it from the first as one of the four original surgeons with Gunn, Parkes and Whitney as colleagues. And last but not least, I had a successor born to me in that year, a son, whom I expect to carry on the family name at least, and possibly do more for it and the science of medicine than I have been able to do myself. I do not think I realized at the time, or since, that so many important things came to me in any one year—not until I looked up data for this occasion. "Little Jack Horner sat in the corner eating Christmas pie; he stuck in his thumb, pulled out a plum, and said what a good boy am I."

All this is history, somewhat individual and personal it is true, but not wholly so, and I hope I may be pardoned for indulging in this little dash of egotism, now that thirty years have passed.

In my year as president, Sir William McCormac, of St. Thomas' Hospital, London, who was in the height of his surgical career at that time, visited Chicago and our society entertained him. We gave him an evening for a lecture, and some of us remember the topics he lectured upon and the interest that was excited by his presence, and how highly he appreciated the honor. Such things were rare in those days, though now quite common. Parenthetically, I may say that seventeen years later I visited Sir William in London and he reciprocated very cordially by entertaining me in his own home.

In 1883 the society had a membership of something over 200, whereas now it is over 2,000, and I think there were only two other regularly organized medical societies in Chicago; the Gynecological, the oldest of the special societies, and the West Side Medical Society, a neighborhood organization, whose lineal descendant is the present Pathological Society. Whatever may be said in favor of the present-day plan of the profession of Chicago, dividing itself up into ten or twelve special societies and at least as many branch societies, there are some drawbacks nevertheless, and it cannot be gainsaid that in the

greater proportion of members who attended the meetings, for spirited and profitable discussions, and in esprit-de-corps, the Chicago Medical Society of thirty years ago excelled that of today.

Dr. Quine was one who could always be counted on to stir up a lively discussion. Some of us thought he was a great debater and we were not quite sure but what he thought so himself. His allusion just now to his encounter with Dr. Wickersham illustrates what happened sometimes when he crossed swords with some of the older men. Dr. Gilman Smith on one occasion characterized him as "my cinchona friend, Dr. Quinine." Then we had Dr. Paoli, one of the unique figures of that time. He was rarely absent and never failed to discuss the subject under consideration. Those who remember him will recall how invariably he began by praising the paper and commending the author, and then, with changed expression, he would say, "But," emphatically, and proceed to set things right. An incident of historical interest which occurred about this time, or perhaps two or three years earlier, is worthy of note in this connection. A local surgeon had attempted to extirpate a diseased kidney, claiming it to be the first operation of the kind in this country. The patient died of hemorrhage on the table. A newspaper reporter happened to be present and a detailed account of the procedure was found the next day in the paper, with much praise for the "bold surgeon." Dr. Paoli appeared at the next meeting of the society full of indignation, and moved a resolution that the operation of nephrectomy was never justifiable. I hardly need to say his motion failed to pass.

Many will recall the name of Dr. Charles Gilman Smith, whom I have already mentioned. He was one of the most jovial men in the profession and added gaiety to every occasion. At that time the operation known as nerve-stretching was prominent, and one night at a meeting he said, "Surgeons talk as if this were a new thing. It is not new. Two hundred and fifty years ago Philip Dodridge recommended it as a soul tonic when he sang:

"Awake my soul, stretch every nerve,
And press with vigor on."

Mr. Toastmaster, I think my time is up. I shall stop here and ask leave to print what I have omitted. (Applause.)

THE TOASTMASTER: When I came to Chicago and joined the society, the next speaker was its president. He looked to me at that time a "heap big man" and he does now. He has been a teacher of

surgery ever since I have known him. I take great pleasure in introducing Dr. Steele. (Applause.)

DR. D. A. K. STEELE.

"I hold that there is no *sanctum sanctorum* in Science, and that it distinctly belongs to the physician to seek for the solution of the problem in the discovery of those laws of Nature which are to him the incontestable records of eternal truth." (Henry Maudsley.)

Mr. Toastmaster and Members of the Chicago Medical Society:

I had the honor of serving as your president during the years 1884 and 1885, being the 34th anniversary of this society. It was a notable year in the medical history of Chicago. Fifty-one new members were received during my presidency. The average attendance at each meeting of the year was 37 out of a total membership of 293. You have grown some in the last quarter of a century. It was a notable year, inasmuch as it marked the entrance of a group of young, ambitious and active physicians into the medical politics of the city, state and nation, and the infusion of new blood, new enthusiasm and new names into your membership. Such men as Drs. E. J. Deering, Frank Billings, Wyllys Andrews, Franklin Martin, Frank Johnson, L. L. McArthur, and a few others of equal prominence, full of enthusiasm and a desire to change the then existing conditions in the Chicago Medical Society, and infuse new life and activities into its work, were instrumental in electing your present speaker, president of the Chicago Medical Society, on the 7th of April, 1884. It was a presumptuous thing to do, but these same men have been on the medical map of this town ever since as presidents, deans and poobahs of medical organizations and colleges, and they are all live wires yet, and thus I had the honor of succeeding my distinguished friend, Dr. D. W. Graham, and preceding the lamented but no less distinguished surgeon, Charles T. Parkes, as your presiding officer. It was a great year for medical progress. It was the year Nicholas Senn presented his classical paper on "Cysts of the Pancreas" before the A. M. A., and Charles T. Parkes published his epoch-making paper on the experimental surgery of gunshot wounds of the intestines. Boerne Bettman presented a paper of startling interest on the newly discovered local anesthetic, muriate of cocaine, and F. E. Waxham appeared before us as the apostle of intubation of the larynx in membranous croup. My honored friend and colleague, Dr. Quine, taught us the significance of jaundice in diagnosis. Joseph Zeisler, fresh from the laboratories of Germany, demonstrated the specific bacillus of syphilis, and Dr. L. L. McArthur gave us for the first time in Chicago an exhibition of the Koch comma bacillus of Asiatic cholera, sent by Odo

Petz, of Tübingen, Germany, to Dr. E. J. Doering. We were beginning to see things then.

During my presidency, by authority of a resolution introduced by L. H. Montgomery, and unanimously adopted by the society, I had the honor of appointing Drs. Oscar C. De Wolf, R. E. Starkweather, L. H. Montgomery, J. H. Etheridge, A. Reeves Jackson, and John H. Hellister, a special committee on Public Sanitation to memorialize Congress to maintain a National Board of Health to cooperate with state and municipal boards of health in detecting and preventing epidemic diseases and maintaining a quarantine of infectious and contagious diseases, and through the efforts of this committee great strides were made in public sanitation and in the control of infectious and contagious diseases. I claim no credit for the part I played, but simply mention these achievements as incidents of a memorable year in our society's growth. (Applause.)

Mr. Toastmaster, if I may apologize for being late at the dinner this evening, it was due to one other incident in my professional career of which, I believe, the members of the society will also feel honored. Today I had the privilege of presenting before the governor of the state, as a member ex-officio of the trustees of the University of Illinois, the College of Physicians and Surgeons, as the permanent medical department of the University of Illinois, and presented to the board of trustees a deed to all the property and equipment of the college from the directors of that institution, the gift amounting to something like half a million dollars in round numbers, and a million in the blood and bone and energy put into it during the last thirty-one years in its upbuilding and development, and it was accepted by the trustees of the university in the presence of the governor and president of the university without a single dissenting vote. (Applause.)

THE TOASTMASTER: The next speaker was our president for the years 1886 to 1887. His activities have been in the Marine Hospital Service of the United States, and he is now president of the Illinois Division Medical Reserve Corps of the U. S. Army, Dr. Doering. (Applause.)

DR. EDMUND J. DOERING.

"We must not only have the wisdom, which is knowledge assimilated and made our own, but we must have wit to use it." (John Brown.)

Mr. Toastmaster, Ladies and Gentlemen: In this little sentiment before my name, I notice that I am not only to have wisdom but the wit to use it, and, considering the eloquent speakers who have preceded me and the silver tongued orators who are to follow me, I

think I will show both wisdom and wit and live up to my reputation of having made the fewest and briefest speeches of any president in this society, which you all no doubt will be glad to hear. (Laughter and applause.)

In regard to the request of the president to add something to the history, I will say that during my term of office we changed the method of reporting the proceedings in longhand to shorthand. We also organized the CHICAGO MEDICAL RECORDER, which, as you know, for many years published the proceedings of the society. From the earnings of the CHICAGO MEDICAL RECORDER we instituted a number of prizes of \$100 each for the best medical and surgical papers delivered each year and kept it up for many years until all papers were of such a high standard that we had to quit offering prizes. (Laughter.) One-third of the total membership organized the Chicago Medico-Legal Society, which did all the work and carried on the functions which are now performed by the Medico-Legal committee under the able chairmanship of Dr. Moyer. During twenty years of active existence we kept twenty blackmail suits from going to trial. Many papers were read on Medico-Legal topics, and we have been keeping up the society for future emergency. I may state here, that after the Medico-Legal Society existed for twenty years it paid back to every member the initiation fee and all dues he had paid into the society, and we still have a few thousand dollars left. I mention this to show that doctors are not always such poor business men as they are made out to be. (Applause.) I wish to express my appreciation to those responsible for this splendid banquet, which has given us an opportunity to renew old acquaintances and to express our loyalty to the grand old Chicago Medical Society. (Applause.)

THE TOASTMASTER: The gentleman who is to follow was the first in Chicago to encourage the study of the relation of germs to disease. He is a profound student of eugenics. He performed the first suprapubic prostatectomy on record. With pleasure I introduce Dr. Belfield. (Applause.)

DR. WILLIAM T. BELFIELD.

Mr. Toastmaster, Ladies and Gentlemen: In this rummage exhibition of its antique bric-a-brac, I am supposed to represent for the society the period during which occurred the rise of modern surgery. Prior to the early '80s surgery was the least attractive because the least hopeful, the least promising branch of practice. Those of us whose hair is whitening—and vanishing—can recall a picture which it would be difficult for the younger members of the society even to imagine. Fancy, if you can, the then new county hospital reeking

with suppuration, erysipelas, septicemia and pyemia; patients dying of sepsis after the amputation of a finger or a toe; one-third of all compound fractures dying of pyemia; one-tenth of all parturient women dying of blood-poisoning. Why? Because the cause and hence the prevention of wound infections were then entirely unknown. I well recall the picture of the dressing of wounds in those wards when I was a student. All wounds were suppurating, naturally, because all were washed and wiped with the same sponges wet in hydrant water carried in the same pail. The surgeon of that day always washed his hands after operating—and sometimes before. (Laughter.)

During my sojourn in Europe in the early '80s, the relations of bacteria to the wound infections were being revealed. To this fascinating topic I gave much attention and brought home a trunk full of slides containing all the then known pathogenic bacteria, including the newly discovered tubercle bacillus of Koch. I believe these were the first bacteria ever seen in America. When I received the honor of the presidency in 1887, the secretary chosen at the same election was another charming young debutant, Frank Billings. He had just returned from European study, where he had rounded up all the bacteria that had gotten away from me. (Laughter.) As you may imagine, our administration was characterized by some strenuous preaching of the gospel of bacteriology. The need for this effort was indicated by the skepticism and ridicule which it evoked. An anonymous letter addressed to me as president probably represented fairly well the sentiments of the society of that day on bacteriology. Its content was this pleasing alliteration—"Belfield and Billings, Boobies on Bugs." (Laughter.)

We have lived to see bacteriology rank as a fundamental branch in medical education; to see the wound infections banished from the operating room; to see a great and cosmopolitan Chicago Medical Society giving critical and appreciative audience to leaders of medical progress from all quarters of the globe—yes, furnish leaders of progress from its own ranks. I would that this occasion might be graced with the bodily presence of some of these leaders, ex-presidents who have gone before, to whose memories we, their pupils, including the living ex-presidents, gratefully render admiring homage, Davis, Fenger, Senn, Parkes, Henrotin—these kings are dead: long live the kings. (Loud applause.)

THE TOASTMASTER: The Bull Moose of our society will now address you. He is not only an ex-president of our organization, but he has also been president of the American Medical Association. He

has labored incessantly for the betterment of our profession. He is an ardent student and the most forcible teacher of medicine in our time. He shortened his trip in southern waters to be with us tonight, and I take pleasure in introducing the man who has the unselfishness to do that—Dr. Billings. (Applause.)

DR. FRANK BILLINGS.

"And, if the fight is for principle and justice, even when failure seems certain, where many have failed before, cling to your ideal, and, like Childe Roland before the dark tower, set the slug-horn to your lips, blow the challenge, and calmly await the conflict." (William Osler.)

Toastmaster Frank, Fellow Sufferers, Members of the Society, and Their Better Halves: Who would not come back to such a meeting as this? The sunshine and the balmy breezes of the West Indies could not be a temptation compared with this beautiful audience. (Applause.) Of course, I came back, and I am glad I can come back. (Laughter.)

I was president of the Chicago Medical Society at its turning point. Dr. Belfield is wrong; he reached the hill, but with my presidency began real scientific medicine. (Laughter.) I do not remember much else about my term of service except it marked the beginning of scientific medicine in the Chicago Medical Society. (Applause.) I can remember all those worthies to whom Dr. Quine has called attention, and I thank God from my innermost heart that I knew Edmund Andrews, N. S. Davis, H. A. Johnson, John H. Hollister, E. O. F. Roler, R. W. Isham, Christian Fenger, William H. Byford, James Adam Allen, Charles T. Parkes and Moses Gunn. I thank God they were my teachers, for they were stalwarts. (Applause.) They taught more than mere knowledge; they taught character, and not only am I glad to recall them, but I am glad to have always known my colleague in medicine—Quine. (Applause.) He is not old enough to be called one of the patriarchs, although he was my teacher as well as most of the men who sit about this table. He has remained young, and the secret of it is in having young kids around him. (Laughter.)

In the last twenty-three years, since I was president, I have watched the progress of medicine and it is the grandest era medicine has ever known. I thank God I have known the young men that have passed out from under the hands of these teachers as well as my own. I am glad and hope that I may live to see the young men do the work which we older men cannot do, for we are not educated to do it. I thank God above everything else that I have lived to attend this banquet (applause); to see such a gathering which Dr. Frank has

brought about, to see him bring not only the ex-presidents here to probably the only dinner ever given to them (laughter), but to see him bring out members of this society in such a vast number and bring what is unknown in the annals of the Chicago Medical Society, so many of the wives of the doctors. That means much. It means much for the future of the society. (Applause.)

As has been said by Dr. Quine and Dr. Graham, in the old days there was more courtesy perhaps between the members in the Chicago Medical Society and in their work in the colleges and hospitals. That is not true. Thirty-one years ago when I graduated, there was more strife in the medical profession of Chicago than there has been any time since. Let us give you an illustration of it. As an interne in the county hospital, in walking the halls and wards attending to one surgeon, we met another in the hall. They did not speak. Well, I was a country boy, rather provincial and simple, and I said, "Why, doctor, don't you know Dr. So and So?" "No, sir; and I don't want to know him." (Laughter.) There has always been strife in the Chicago Medical Society, and I hope there may always be differences in this society, and when strife ceases we are dead, so I welcome a strife which is honorable in the Chicago Medical Society, for it means the members are alive.

Mr. Toastmaster, I have nothing more to say, except to again express my admiration to you, sir, and to the Committee of Arrangements, that you have been able to bring about this magnificent meeting. (Loud applause.)

THE TOASTMASTER: Everybody admires success and we all admire the next speaker for it, and for what he has done to help make Chicago a surgical Mecca. I take great pleasure in introducing to you Dr. McArthur. (Applause.)

DR. L. L. McARTHUR.

"The grave of each superstition which it (Science) slays is the womb of a better birth." (Henry Maudsley.)

Mr. Toastmaster, Members of the Chicago Medical Society, Ladies and Gentlemen: I feel like resenting one or two things that are incident to this banquet. First, the spoiling a delightful repast by such toasts as are printed beneath the names of each man on the program. (Laughter.) If I had the courage—and courage is that noble quality of the mind which enables us to forget how frightened we are—I would say that such a toast as this that obtains beneath my

name calls either for an undertaker or an obstetrician. (Laughter.) Speaking of undertakers, I have not had much to do with them lately, but I met one the other day (laughter), and he was very cordial and looked as though he were doing a large business. I asked him, "How's business?" "It is looking up among the children," he said, "but I suppose that is due to Christian Science." (Laughter.)

On seeing this toast I tried to scare one of our leading obstetricians by making him believe that I was going to call upon him to respond for me—Dr. De Lee. (Laughter.)

I want to resent another thing, namely, to be classified as a bric-a-brac. (Laughter.) It is only twenty years since I was president, but I still feel, as Dr. Billings says he felt, that I can come back. I am the only one to my knowledge who, aside from Dr. N. S. Davis, has had the honor of enjoying the office of president for more than one term. This was due to the death of Dr. Charles Warrington Earle, of sainted memory and very much beloved. He died during the time of my vice-presidency, and I filled out his unexpired term. At that time, thinking that it might be possible to come back, I inquired of a friend whether it would be all right for a man to serve more than one term, and he said, "That depends on where he serves it." (Laughter.) That discouraged me from any further office seeking. It was my great pleasure and honor at the termination of my office as vice-president, serving in the capacity of president, in the absence and death of Dr. Earle, to nominate as president of this society Dr. Nicholas Senn, and waive all claim to that appointment, although my name was on the nominating ticket at that time. Dr. Senn during that year gave to this society that most magnificent library of his, comprising more than 10,000 volumes. (Applause.)

In the three minutes allotted me, it is not possible to go into the history of the society, but with those who have preceded me I desire to say that it is a society of which you may all be proud and of which we are all proud, and which we, who have done our moiety, leave to you to advance, hoping you will carry the good work on. (Loud applause.)

THE TOASTMASTER: When you travel with a man for weeks, as I have done with the next speaker through Russia, you are apt to learn something of his make-up. This much I can say, barring his bachelor peculiarities, that Dr. Moyer is a friend of us all and a champion of

every cause for the betterment of his brother practitioners. Ladies and Gentlemen, Dr. Moyer. (Applause.)

DR. HAROLD N. MOYER.

"We must wait in patience, says Professor James, the advent of more facts, facts which may necessitate a century or more of study, before we can begin to think that we see clearly." (Theodore Flournoy.)

Mr. Toastmaster, Ladies and Gentlemen: The year of 1896-1897 was a traditional period in the history of the Chicago Medical Society. Science had been introduced tentatively, somewhat weakly, by two or three of my predecessors. (Laughter.) At that time the general factotum of the society was Edmund J. Doering, who was seeking for a president. He attended to these matters at that time. (Laughter.) He not only directed his attention to the office of president, but gave his attention to the other offices and to general details, and the success of the society was very largely due to him and his perspicacity in selecting proper officers during a long period. (Applause.) He came to me and told me he had decided that I should be president for the coming year. (Laughter.) I told him I was too young. No, he says, you are mistaken about that. He said, "The Society is fagging a little; we want men of force, scientific men, men of energy who will take hold of this society and put it on its feet, and I have decided on you." He said it was my duty to go on the firing line, and I did. (Laughter.) I had then been a member eleven years, having joined under the presidency of Dr. Steele. The society had not increased largely in numbers. Enthusiasm had grown. The scientific work had grown, but somehow we felt as though the great body of the profession was not as numerously represented in the membership at that time as it should be; consequently it devolved upon me and the other members to get out and hustle in new members, those whom we thought were needed and would add to our scientific work and be helpful in the organization, and that is largely the work that was done at that time. There was a substantial increase in the membership which in the following year, when I was succeeded in the presidency by the late Fernand Henrotin, resulted in our having a membership which justified our getting a permanent place for the meetings. Prior to that time we met in hotels, court rooms, lodge rooms, in any place where they would let us in. (Laughter.) That year was not very significant of anything I can recall distinctly excepting that of growth. It was a distinct and substantial growth which landed us in new quarters, and the society nearly doubled its membership in that and the succeeding year. These are the influences or things that put me in this aggre-

gation tonight. (Laughter.) It is, as Dr. Quine has said, something of a joke in a way. Dr. Quine will remember the introduction I gave him once when he sat between a preacher of the Methodist persuasion and Father Downey. I said that he, "Looked like a cafeteria sandwich with lots of bread and mighty little meat in it." (Laughter.) The situation tonight is not very unlike that. (Laughter.)

THE TOASTMASTER: We will now listen to one of the foremost exponents of higher standards in medical education. He has given this question as much thought as any man living. As a teacher in surgery, his reputation is international. I take great pleasure in introducing to you as the next speaker Dr. Arthur Dean Bevan. (Applause.)

Dr. ARTHUR DEAN BEVAN.

"But an awakening has come, and there is sounded the knell of doom for the medical college, responsible neither to the public nor the profession." (William Osler.)

Mr. Toastmaster, Ladies and Gentlemen: I find that I am asked to respond to the toast with a quotation from William Osler. I suppose that this toast has been assigned to me because for ten years or more I have been chairman of the Council on Medical Education of the American Medical Association. I have been rather on the firing line, as Dr. Moyer expresses it, in this work. I would like very much to have an hour or more to tell you the story that those swiftly moving years have written and tell you the changes that have occurred in medical education in this country during the time of the presidency of the men who sit at this table of the Chicago Medical Society. It would, however, be depriving the other men of the opportunity to speak. I would like to say, however, that marvelous changes have been made; that the men who taught us, who taught Quine and Steele and Graham and the rest of us were great men. They taught well the knowledge of their day, but since that time there has been a revolution. A new science has been born—the science of medicine. A great change has taken place all over the world in the teaching of medicine. Here in this country we lagged behind for a long time, but we have in the last few years made very rapid progress. I am glad to tell you that the number of medical colleges in this country has declined from 166 to 100 or less. (Applause.) That the standards of medical education in this country are being so rapidly raised, that within a few years we shall be on as high a plane as the medical schools of Germany, the Continent generally and Great Britain. I

want to say, however, that in order to bring this about we must have the right conception.

The other day I was in a southern state. In that state a few years ago there were many medical colleges of a very low grade. Within the last few years a change has taken place in that state, and I found in that state a strong medical school. I found that it is the medical department of the state university; that in the center of population in which it is located the citizens of the community have been educated to the standpoint of turning over their great city hospital bodily to the medical school. (Applause.) They have turned over their dispensary work to the medical school, the City Board of Health work has been turned over to the medical department of this university. In other words, that community has learned that the time has come in modern civilization when we must treat the community as a whole; that we must recognize a proper subdivision and division of labor in a community. When you do that, the medical profession has a certain definite function to perform. It is the organized instrument which should give to the community the benefits, the great possibilities of modern scientific medicine.

Now, without being I hope the ghost at the banquet, let me ask you a question, "How have we answered that great problem in this community?" Have we answered it well up to this time? Certainly not. Chicago has particularly lagged behind in medical education, in hospital work, and in State Board of Health work. We must all of us take an active part in educating the public to realize the importance of developing in the State of Illinois and in the City of Chicago that same sort of community interest which I refer to as existing in that southern state, and in that problem there are three things we must accomplish. First, we should make Chicago a great medical center by seeing to it we have the medical schools here of the highest grade and none other of any kind. We should see to it and educate the public to recognize the fact that our great Cook County Hospital should be taken out of politics and made the center of medical instruction, a great medical center just as the Krankenhaus in Vienna, if put on the same modern lines. We should recognize it is necessary for us here in the State of Illinois to have in the State Board of Health trained sanitarians, a great many of them, with a sufficient appropriation to give to the State of Illinois and to the City of Chicago the possibilities of preventive medicine. (Applause.)

Mr. Toastmaster, Members of the Chicago Medical Society: It is well that we have here tonight paid homage to the glorious past, its

great men and its great achievements. Let us now turn and salute the mighty future, let us consecrate ourselves in the coming years to the task of making this medical society the instrument which will bring to the City of Chicago and to the State of Illinois the great boon of modern medicine. (Loud applause.)

THE TOASTMASTER: One of our ex-presidents during his administration was always in doubt as to whether me came before Gott or Gott before me. I understand he favors the former. He served as secretary of our society for thirteen consecutive years and in those days the proceedings were recorded by the secretary in his own handwriting. I take great pleasure in introducing to you, Dr. Hoag. (Applause.)

DR. J. C. HOAG.

"The history of our own race is one long commentary on the cheerfulness that comes with fighting ills." (William James.)

Mr. Toastmaster, Honorable Ex-Presidents, Ladies and Gentlemen: Our worthy President has gathered this notable assembly together to honor the Chicago Medical Society for its illustrious past and to promote for it a still more glorious future. He has requested the Ex-Presidents to state what in their opinions were the chief factors in the upbuilding of what has become one of the most important organizations of this city. (Applause.)

Speaking for myself, I have to say my opinions relative to the Society are based upon observations made during a long period of active participation in its work, for I occupied the office of secretary for thirteen consecutive years and that of vice-president for one year, before my election to the presidency.

Now these are some of the feelings that most strongly were impressed upon my mind while discharging the duties of an executive officer. In the first place, the Society was founded away back in the early dawn of Chicago's history, antedating indeed so far as I know the foundation of any other organization in this city, that is at all akin to it.

In the next place, it was founded by wise, able men, some of whom aided in its aggrandizement by their active support and generous counsels, until ripe in age and rich in honors they left this sphere of terrestrial activity and leaving it bequeathed to their successors one of the most notable societies of its kind to be found upon this earth. Heaven indeed may have bigger and better medical so-

cieties, but I know of none better here, and Dr. Frank does well to glorify and magnify it. (Applause.)

To my mind our founders and early leaders were so wise, so potent in organization, so earnest in promoting our common professional interests, that it has been relatively an easy task for their successors to build upon the foundations laid down by them so long ago.

Do you need to have called up to memory a type of the class of men to whom I refer? There was one who in his character and achievements fitly may represent them all. In the first place, he was preeminently an organizer. From early manhood until the end of an unusually long life, he was foremost in the upbuilding of our profession. He was a great medical teacher; a great advocate of temperance and right living; he was a man who made a lasting impression upon his times. I speak all the more feelingly of him because he was my friend, from my childhood, and had much to do in influencing my life. Knowing him as I did and being well acquainted with many phases of his activities apart from professional lines, I have always felt he would have been equally or even more conspicuous in any other sphere of human activity which he might have chosen for his career.

Ladies and Gentlemen, you know who my hero was. The last time I saw him was upon an occasion like this—a great banquet. He was asked to address the company. Ready as always to do his part he arose, somewhat feebly, in his place and in the midst of profound, impressive silence, there fell the last words of wisdom. His voice that was wont to fill the largest auditorium was weak from age and quavered a little at first, but it gathered strength as he proceeded until it rang true with the oratorical magic that had so often charmed us in the past. He told us he was nearing the end of life. He had run his race. The goal was almost in sight. He said he was unaware of having done injury to any man, but if there was such a one he craved his forgiveness. He told us his life had been rich in blessings, that he had enjoyed it, that he had done what he could of the world's work and was ready to do more if strength permitted; but he was ready to go.

And then he proposed a toast, the most eloquent and beautiful I have ever heard and this was his sentiment: "Come join me friends in a toast to pure water; water that sparkles in the dew drop, that laughs and leaps in the mountain brook, that descends from heaven in grateful showers to refresh the parched earth, that flows majestic-

ally through the broad valleys to gain the distant sea and that finally, in a stream as clear as crystal, flows serenely past the throne of God." (Applause.)

Friends, will you join me in a toast? Then drink to the lasting memory of a good man—Nathan Smith Davis. (Applause.)

THE TOASTMASTER: We are apt to forget the man behind the gun, who does much and says little. This man is Dr. Stowell. (Applause.)

DR. JAMES H. STOWELL.

"Never has the outlook for the profession been brighter. Everywhere the physician is better trained and better equipped than he was twenty-five years ago." (William Osler.)

Mr. Toastmaster, Fellow Members, Ladies and Gentlemen: I am somewhat surprised at the audacity of some of these gentlemen calling themselves the progressive members of the profession. (Laughter.) It was in 1900 that the progressive men first came to the front. (Laughter.) For ten years I had been the Chairman of the Membership Committee, and among other things I had the privilege of recommending as members of this society some of our distinguished friends to my right. That gave me a fine opportunity to appeal for the votes of my constituency (laughter), and as a progressive I carried the day. At once the Chicago Medical Society began to be an active force in the medical world. (Laughter.) We did not forget Chicago, but we aimed to enlighten the world, and thus attract attention to Chicago as a great medical center. As a first maneuver we called in some of the brightest intellects of the profession from the north and south, from east and west. We first called in our friend and co-laborer, Norman Bridge, from the Pacific Coast. He gave us a most interesting and instructive talk on Climatology. We then, for the first time, and I am sorry to say the last time, invited the elect of the American Medical Association, the trustees of the organization to appear before the society, and they came and we had a grand meeting and listened to their words of wisdom and erudition. Surgeon General Walter Wyman, whose military bearing and genial friendship you remember with so much pleasure, gave us an interesting talk. The first real effort towards sanitation and hygiene came when we invited the most eminent men in that line to address us. We had Ernest Wende from Buffalo, commissioner of health of that city. Dr. C. O. Probst, of Columbus, Ohio, and H. M. Bracken, commissioner of health of Minneapolis, as well as our own Dr. William A.

Evans, and from that time on you who have kept track of things well know with what activity sanitation and hygiene has progressed. (Applause.)

I cannot pass on without referring to my old friend Dr. N. S. Davis, who taught us not to wait for the car that was coming, but to take the one that had just passed. (Laughter.) He wanted us to be up and active and doing things ahead, not waiting for those behind.

I want to say further, everyone sitting at this table is in many ways equal to the illustrious men that have passed, and I remember those who have been mentioned tonight with a great deal of interest and veneration, especially Moses Gunn, who, some of you will remember as he sat like a general on his black charger, how stately and grand he looked when he rode up and down Michigan Avenue. I recall very well Dr. A. Reeves Jackson, Charles Warrington Earle, Uncle (J. Adams) Allen, Dr. John H. Hollister, Wm. H. Byford, H. A. Johnson, Edmund Andrews, J. S. Jewell, E. O. F. Roler, and many others. And like them there are men right before me who are doing a noble work today, and in the midst of their activities such men as Quine, Billings, Murphy, and I believe all who sit at this table, are ready to render every assistance to the younger physicians the same as those noble men who have passed to their reward. (Applause.) I am sure that the memory of this evening will be treasured by us all. May God grant us to see the day when every medical college shall adopt the standard to which our friend Dr. Bevan has called our attention and towards the attainment of which we should give our best endeavor. Let me say, every word he has uttered is true and should be burned into the hearts of everyone here tonight. As a member of the commission now investigating medical colleges, I see and know the need of better medical colleges and more efficient training for the physician of the present and future. Everyone of us should put forth his best efforts to raise the standard of medical education and to make this City, and this State, the Mecca for students and physicians. If we can do that, and I think we can, we must put our shoulders to the wheel and with united effort press on to the good work. I thank you. (Loud applause.)

THE TOASTMASTER: The speaker to follow can well be styled the silver tongued orator of the medical profession. He knows all about public sanitation and hygiene. His morning writings of "How to keep well" are familiar to you all. I take great pleasure in intro-

ducing to you our former Health Commissioner, Dr. Evans, (Applause.)

DR. WILLIAM A. EVANS.

"Long after the jungle is as safe as the high street of a big town, man must walk in terror of tuberculosis, syphilis, cancer, leprosy, cholera, and other diseases caused by fungi and protozoa. But in the end, and that in no impossibly remote future, he will conquer even these foes." (Max Nordau.)

Mr. Toastmaster, Members of the Chicago Medical Society, Ladies and Gentlemen: I came here tonight with the idea that it was during my administration that things were started. (Laughter.) I came here tonight with the idea that it was during my administration that the turning point was reached, but as these various speakers told us their story, my mind was speedily disabused of that idea. I trust you understand that I have too much judgment to undertake to start things in a talk of three minutes, yet I cannot wholly get away from the idea that somewhere about that time there was a change in things (laughter): that somewhere about that time there came a something that was different from the things that had gone before, and perhaps something of conviction has been added to this idea by the disposal that has been made of the ex-presidents. (Laughter.) You will notice to the right of the speaker are gathered all the bric-a-brac, and right here either at my seat or by the seat adjacent to mine is the turning point. (Laughter.) Here is the point that represents the difference between those that can come back, and those that do not need to come back (laughter) and now, ladies and gentlemen, it would not be possible for me to entertain you with reminiscences of the medical history of early Chicago or the early history of the Chicago Medical Society. That which has happened within the last ten years is a matter of information, of personal information to the majority who are here tonight, and in consequence the possibility of entertaining you with delightful stories of the patriarchs of medicine, of the heroes that have been responsible for this organization and for the history of Chicago medicine, is denied me. Nor is it possible for me to fittingly occupy your time with a recital of the changes that have come over the practice of medicine, over the methods and ideals of the Chicago Medical Society during the past ten years and in consequence of these limitations I have but one thought to offer to you.

In the early history of Chicago there was necessarily a certain local patriotism, certain Chauvinism, and it is not my intent or purpose to belittle the influence of that spirit in the creation here of



something out of nothing. In the building up of an empire city here, in the building up of a well known medical center, where in less than 100 years ago there was a wilderness,—in that stage of our society there was necessity for local patriotism, for Chauvinism. There was necessity for this point of view, for this function of activity, for this mainspring of energy. But there came a time when there threatened seeding of this plant. There came a time when it seemed probable that the very plans that had carried us forward would serve to limit us henceforth, and for this empiricism and Chauvinism there came a man bringing to American medicine a scientific point of view, bringing to American medicine a certain broadening of spirit, a certain brotherhood, a certain scientific atmosphere, and my wish is that we may pause between the fullness of the day's work of yesterday and of the day's work of tomorrow to pay a tribute to the man who contributed more than any other man to the fullness of that work, the successor as president of Dr. Stowell and my predecessor in the office of president—Christian Fenger. (Loud applause, which was followed by the audience rising.)

THE TOASTMASTER: I take pleasure in introducing one of Chicago's best diagnosticians. When others have failed, ask Preble. (Applause.)

DR. ROBERT B. PREBLE.

"Could Hippocrates meet again a class of students at some modern Cos and discuss the changes which twenty-five centuries had wrought—he would repeat again those noble words which have found in this triumph their practical realization; to serve the art of medicine as it should be served, one must love his fellow man." (William Osler.)

Mr. Toastmaster, Ladies and Gentlemen: I have never found myself in a more embarrassing position than tonight in having to speak immediately after the silver tongued orator. It is a difficult thing for me to speak at any time, but particularly difficult on the present occasion. The chairman of the Committee of Arrangements assigned to me the task of telling you the story of my administration. It is a well known fact that in periods of peace and quietude the historian has but little function, and the years 1903-1904 were periods of peace and prosperity in the Chicago Medical Society. (Laughter.) The activities of the organization were particularly directed towards organization among the members of the profession here in Chicago. The society grew with great rapidity. The scheme of branch societies and the details of their organization were pushed forward with great energy and with beneficial results to everybody.

In looking over the records of the year in search for material which would occupy three minutes, the time allotted to me this evening, I was particularly interested in the scientific programs, and find that the work of the year continued at the high level previously set, and among the papers which were read it was curious to find that among the subjects, appearing there for the first time, were many which are today so well established in practice that it is difficult for one to believe that so brief a period has passed since their first appearance on the program in the Chicago Medical Society. An equally striking thing is the fact that many subjects which today are centers of discussion, and many other subjects which have been settled, are not even mentioned. They were entirely unknown.

In closing, I think it is proper to mention that during the years 1903-1904 we lost two of our most distinguished members, one of whom has been mentioned repeatedly this evening, and I do not believe I go too far when I say that there are few men in the medical history of America whose influence has been greater and farther reaching than that of Dr. Nathan Smith Davis, who died during this year, and when one recalls the social conditions in which he lived during the earlier period of his life it is difficult to believe any one man could have had the very powerful influence which he did have in his early manhood. The other member who died during the year was Dr. Edmund Andrews, for years one of the most distinguished surgeons of America; a man of such broad culture and character that he was a stimulus to every man who came in direct or indirect contact with him. (Loud applause.)

THE TOASTMASTER: The next speaker is not alone an ex-president of our Society, but is also a past president of the American Medical Association. He needs no introduction from me. His name and fame are known wherever modern surgery is practiced. I take pleasure in introducing the greatest living teacher of surgery, John B. Murphy. (Loud applause.)

DR. JOHN B. MURPHY.

"No man of genius creates by his own means alone. He is heir to the labour of the men of genius who have gone before him, without whom his existence would be impossible." (Max Nordau.)

Mr. Toastmaster, Honored Guests, Fellow Guests of the Antemortem Corps, Ladies and Gentlemen: I scarcely know what to say after such an introduction as your Toastmaster has given. I was informed by Dr. Frank when we sat down this evening that we

should have three minutes in which to talk, and the less we said in that time the better he would like it. (Laughter.) I fully seconded that motion.

I wish on behalf of the members of the corps behind this table to express to Dr. Frank and to the Committee of Arrangements my sincere personal appreciation of the compliment paid to the ex-presidents of the Chicago Medical Society. I wish to express to the members and the ladies and gentlemen present my appreciation of their large attendance at this meeting. (Applause.)

What can one talk about in three minutes? Why are the men at the head of the table here? What is the proposition. What is the greatest barrier to advancement in medicine or in science? Systematic Education? No. Systematic training? No. The binding and limiting effects of tradition and respect for accredited authority. It is important in the advancement of every science that the general welfare of all of its individuals should be studied and cared for. The temple of science in its construction is made of many arches; the pillars of the arches are filled in by men who do the everyday work, but if you will read the sentiment of my topic it says, "The genius is not machine made." What is genius? It is the courage to break through fixed prejudices and ideals and strike out on a pathway alone. The man who can do that and withstand the depressing and biting effects of criticism and wit, can come to the class of geniuses, and when you look over the history of the world, the men who did things were not men who were college bred or trained from their infancy to be great. They sprang up in the wilderness, among the prairies, and in the back streets, and learned to think as free men first and free thinkers; they broke through the bondage and through the opinions of their day and did new things. (Applause.) If the men of this society produce anything great, it will be through breaking through the regular order of things of their day and time, and if I were to ask the members of this society to do one particular thing it would be this: to encourage every young man who has an idea to bring it before the society and give it a careful, conscientious and attentive hearing and stimulate him to do more work and more thinking in that line. (Loud applause.)

THE TOASTMASTER: The man I am about to introduce to you was my rival in 1906 for the presidency. An upper cut brought me to the mat and when the gong sounded to resume action, I was counted out. Seven years of careful training and struggling upward

has placed me with the victors. I take great pleasure in introducing Dr. C. S. Bacon. (Applause.)

DR. CHARLES S. BACON.

"The physician should not only be a wise man, who practices on his patient a sort of vivisection, but he ought to be, before all, a man of heart who knows how to put himself in the place of those who suffer." (Paul Dubois.)

Mr. Toastmaster, Members of the Society, Ladies and Gentlemen: I shall take advantage of the invitation of the Toastmaster and Chairman of Committee of Arrangements and try to make a slight contribution to the history of this society by a very brief statement of the events of the year 1905-1906. Like the term of Dr. Preble, my year of service may be characterized as a year of internal peace and prosperity. This was not due to the merit of the officers but rather to the circumstances. Three years before reorganization occurred in the administration of Evans and was perfected in the time of Preble. Branch societies were organized and the affiliated societies were in good condition, everything was going on smoothly, and it was not at all difficult to accomplish something. The meetings of the society were held in the Public Library Building, which was well located, and had the great advantage that it did not cost us anything. There were present at the meetings of the society on an average 150 members. The programs were made up of papers by members of the society in great measure. The discussions were stimulated by inviting one or more members to discuss each paper. The authors presented abstracts of their papers for those who were to discuss them, so that prepared discussions were a feature of the program. The society was in good financial condition. The finances were looked after by the trustees, Drs. Reed, Favill and Johnson and by the Treasurer, Dr. Baum. Dr. Baum reorganized the bookkeeping of the society by employing an auditor. To Dr. Baum is largely due the credit for getting \$4,000 for the California fund, which was raised and sent to the physicians of San Francisco who were ruined financially by the disastrous fire in that city.

The organization committee, under the chairmanship of Dr. Frederick R. Green, enlisted the support of the members and the membership was increased by 250 with a loss of 30, making a net increase of 217, the membership having increased from 1,700 to a little over 1,900. (Applause.)

The Public Relations Committee did good work. At this time

there appeared Dr. J. V. Fowler, who began to show his ability as an astute political worker, which has been of great worth to the society in recent times.

Dr. Whalen, who was Commissioner of Health, came in. These men with Dr. Preble and the President and Secretary composed the Public Relations Committee. This committee co-operated with the organization to make the Legislative Committee of the society, to take up and carry out some of the measures that were advised and adopted by the society. One of the most important of these measures was the National Pure Food Bill. Another was the bill reorganizing the medical staff of the army. We were not successful in obtaining the cold storage ordinance for which we worked.

We had a Propaganda Committee, of which the late Dr. Doherty was an enthusiastic member. It should not be forgotten in any gathering so representative as this that in Dr. Doherty we had one of the best members of the society: a man who had the interests of the society at heart. Those of you who heard his reports as chairman of the Trustees will recall the wise, humorous, and very fatherly advice he gave at these times. He was particularly interested in the work of the Propaganda Committee, and established a public lectureship on a sure foundation, so that, at that time, we had from the month of October until the middle of May weekly meetings with an attendance of between 70 and 400.

The Medico-Legal Committee was then conducting medical defense for the society under the leadership of Evans and Moyer. We had numerous special committees, all of which did good work. The only one I will mention was the Committee on Social Hygiene which led to the establishment of a society on Social Hygiene. That committee was presided over by Dr. Belfield, who afterward became and still remains President of the Society. At this time we had a change in the organization of the Cook County Hospital. The attending staff of the hospital was put on a Civil Service foundation, due largely to the efforts of one of the best Presidents of the County Board, Mr. Edward Brundage, who was influenced by one of our ex-presidents, the late Dr. Fernand Henrotin. We also had at that time the Senn banquet.

When I review the activities of that period, I do it with pleasure, and think I am justified in saying again it was a year of peace and prosperity. May more come. (Loud applause.)

THE TOASTMASTER: The ex-president I am about to introduce is now and has been the president of our State Board of Health for twelve years. He is responsible for the free distribution of antitoxin in our state—Dr. George W. Webster. (Applause.)

DR. GEORGE W. WEBSTER.

"Perhaps I may myself hereafter on many points change my mind of my own accord. As I have no lack of charity for the errors of others, I have no love of obstinately persisting in my own." (Works of Sydenham.)

Mr. Toastmaster, Mr. President, Ladies and Gentlemen: Like the speakers who have preceded me on the program tonight, I was invited by the Chairman of the Committee of Arrangements to talk for five minutes on the important events in the history of the Chicago Medical Society while I had the honor of being its president.

As I am desirous of occupying the major portion at least of the time allotted to me, I have chosen to go outside of the very limited field assigned me and talk to you for five minutes concerning a few of the most conspicuous of the changes which I have noticed in the medical profession in the last thirty years.

In this glance at history in the making I am reminded that it has been well said that "without history a man's soul is purblind, seeing only the things which almost touch his eyes," and I am also reminded of what Sir Michael Foster so beautifully expressed when he said, "What we know and what we think is not a new fountain gushing forth from the barren rock of the unknown at the stroke of the rod of our own intellect; it is the stream which flows by us and through us from the far off rivulets of long ago." (Applause.)

It is a far off cry from 1875 when Dr. Quine was president down to the present time, and the road we have traveled has been a long one and yet the pace has been that of the automobile and the flying machine, and greater progress has been made in the science of medicine in that thirty-eight years than in the previous thirty-eight hundred. The most conspicuous and notable advance which means so much for the future welfare of the race is seen in the pushing farther back into the causes or conditions which tend to produce those ailments which we were formerly content to treat, and which we now seek to prevent.

Causes have been sought for and found by our scientists and the causative agents of such diseases as malaria, yellow fever, pneumonia, tuberculosis, spinal meningitis, typhoid fever, infantile paralysis, diphtheria, rheumatism, the suppurations and a host of others are

well known to us, their mode of transmission is well known, the role of flies and mosquitoes and human distributors in their transmission is in many cases fully understood, their terrors in many cases have been minimized, in other cases we are able to prevent, and by means of serums and vaccines the horrors of others have been almost wholly eradicated. (Applause.)

Especially within recent years, more particularly in the last decade, we have been fired with the enthusiasm born of a newer and a nobler thought that prevention is possible, that prevention is better than cure, that prevention has become the dominant note in modern medicine. In 1875 we were concerned chiefly with cures; we are now concerned with causes and with prevention. Where cure was once the supreme ideal, today prevention is the chief aim and today in the United States preventive medicine holds its own against all the world, and we are even now only on the threshold of the door leading to the halls of Hope.

The newer conception finds expression in an enormous amount of efficient, valuable public health work, municipal, state and national. Perhaps I may be pardoned for mentioning one item of my own work in this field. I refer to a work which I conceived, recommended and brought into execution: the free distribution of diphtheria anti-toxin in Illinois. This saves the taxpayers, at a very reasonable estimate, over seventy-five thousand dollars per year, and has saved an average of three babies' lives each day for the past four years. (Applause.)

In Homer we read that two famous surgeons were of as much value to the Greek Army before Troy as two battalions of warriors. The work of two or three physicians in Cuba was worth more than the whole cost of the Spanish American war, and in the construction of the Panama Canal the work of two famous physicians has been of as much value as the work of all the thousands of workmen engaged on this stupendous task, as its construction would have been impossible without them. Concerning the influence of this kind of work on the happiness of mankind, Prof. W. H. Welch says, "Great as has been the material, intellectual and social progress of the world during the past century, there is no advance which compares in its influence on the happiness of mankind with the increased power to lessen physical suffering from disease and accident and to control pestilential disease." (Applause.)

A second, notable change in the attitude of our profession is an ever increasing diversity of interest and effort. As examples of this,

I may cite housing reforms, occupational disease laws, ten-hour laws for women, health comfort and safety legislation, advocacy of the sterilization of the unfit, child labor laws, movements looking to the prevention of infant mortality, prevention of unnecessary blindness, medical inspection of schools, recognizing and minimizing the effects of racial poisons, such as lead and alcohol, the study of eugenics, pure food laws, social economics, the study of fatigue and efficiency.

We are beginning to realize more and more that each tiny atom of humanity has a divine, as well as an economic value and significance, and that, when you put eyes in the finger tips of the blind, when you have led the dead out of their prison house of loneliness and given them speech with their fellow men, when you have cured the alcoholic, when you have loosened the grip of greed from the arm of the child worker, then you are following in the footsteps of the Great Physician who went about all Gallilee healing all manner of sickness.

For the future, in spite of widespread criticism, skepticism, and ignorant tolerance, in spite of the mushroom growth of all kinds of isms, sects, pathies and theories, the practice of medicine holds greater and more wonderful possibilities today, for the benefit of mankind than ever before, because we recognize the truth of Sir Dyce Duckworth's statement that "medicine is an art, based on many sciences," and as science is alike to all men who have grasped its data and accepted its conclusions, while art varies with the man who practices it, it follows that only when the art is based on science is it sound and when it is not so based and goes outside of human experience for its justification, it becomes a mystery, a trade, a sect, a pathy, a theory, a fake, a fraud.

Our future work must combine not alone medical science and art, but ethics, sociology, eugenics, and the related branches of the exact sciences, and all sides of human thinking, feeling and acting, a work for both brain and heart, a work in which it is not necessary for us to be great, but in which it is necessary that we be faithful. (Applause.)

The future of medical education rests upon the state. The state is responsible for its citizens, and no greater responsibility exists than the proper education of its physicians, as the health of the people is the supreme law. The state, therefore, should establish university standards and university ideals, and then provide for them. If the state controls medical education it should support it.

Incidentally one of the most lamentable failures of practically

all our states is the utter failure to make provision for the proper training of those men who are to enforce health laws and solve health problems.

For the future, we must be broad as well as deep, and those problems which are nation-wide must have remedies which are national in scope, and where evils are maintained and fostered and exploited by greed and avarice, we must not hesitate to seek legislation which may seem paternalistic; clearly recognizing the difference between paternalism and fraternalism.

Our work is not yet done. The opportunities are not exhausted. Tuberculosis has not surrendered. Pneumonia is still the Central Africa in the map of the organism; our knowledge of the function of the secretions of the ductless glands is mostly guesses and gaps; the problems of arteriosclerosis and kidney diseases are largely unsolved problems. There remains abundant work in the scientific side but far more in the art, as the average practitioner is not applying the truths already revealed.

The call is a call to war. In the past, every step in the pathway of medical research and progress has been marked by the bloody footprints and the lonely graves of the martyrs of medicine, but through all these strenuous wonderful years, a voice, never silent, in the history of the world, has been growing, deeper and louder, the voice of a man calling unto men, not for alms, not for charity, but for justice and answering in a louder voice, and with a more emphatic affirmative than ever before, the query of Cain, "Am I my brother's keeper?" (Loud applause.)

THE TOASTMASTER: The pure, true type of the typical, noble character of a physician is exemplified by our next speaker Dr. Favill, who served our society in 1907-1908. (Applause.)

DR. HENRY B. FAVILL.

"Let him speak to the mass of cultivated persons who are neither physicians nor learned in law. Let him enlighten them in general publication and in accessible conferences." (Max Nordau.)

Mr. Toastmaster, Ladies and Gentlemen: If anybody thinks that my incumbency as president of the Chicago Medical Society was especially marked by peace, he can guess again. (Laughter.) Most of these old fellows on my right, whom I honor and deeply revere, I might say, were presidents of the society during the days when it was a dignified, sober, self-respecting body, which they presided over

with dignity, more or less soporifically, and in which they were at perfect liberty to go to sleep during the exercises and nobody criticised them. (Laughter.) There was nothing like that in my day. (Laughter.) I am perfectly free to admit that Evans started something when he reorganized the society and when he constituted the council as a typical active working body of the society he opened up a battlefield. (Laughter.) He started something. Under the genial warmth and sunshine of Preble and Bacon and Webster it incubated (laughter), but if I had to state the history of the occurrences during my period it would be the reminiscences of a lion tamer who was eaten up. (Laughter.) I, however, am not going to pursue that subject. I consider this program has been in the highest degree egotistic. It seems to me, we have exploited ourselves as presidents of the society and as a society beyond all reasonable measure. I found here, since I came into the room something that is really relief, and I call your attention to it in connection with my own name. "Let him speak to the mass of cultivated persons who are neither physicians nor learned in law." Who does this mean but the ladies? I could not imagine that this Committee of Arrangements could have left off a toast directed to the ladies, but with that delicacy which only my own acuteness could have discovered, they have cleverly hidden in this little sentiment the real gist of this meeting. (Laughter.) It says, "who are not physicians." Of course, there are ladies who are physicians, but they are in the minority. Most of the ladies before me this evening are not physicians, but it is no mark of disrespect also to say that they are not learned in the law, for although they are the ultimate law givers, after all they are more in the position in that respect of our wonderful supreme courts, which nobody ever accused of being learned in the law, and the supreme courts resemble the ultimate law givers in several respects. First of all, because they have the final word. Have not our wives and daughters the same distinction and advantage? (Laughter.) In the second place, our supreme courts never show any embarrassment in reversing themselves. (Laughter.) Every lawyer knows, as every family man knows, that he may know what the law was yesterday, but he does not know what the law is today, and no human being can tell what the law will be tomorrow. (Laughter.) So, although we have always known in a domestic way where we get off, still in the aggregate, large social way things are changing. The good old days are past. There is no longer a proprietorship based on mere accidental social or economic relations.

A while ago I was out on the plains in a ranch house, eating with a young rancher, his young bride, and an old plainsman whom we called Uncle John. The young fellow was a little cock-sure about his possession of his young bride and said, "Uncle John, I always claim that when I put my brand on a thing it is mine." "Well, George," said Uncle John, "the ethics of the plains is that a thing wants to be yours before you put your brand on it." (Laughter.)

I read in the *Line-O-Type* a day or two ago a very instructive article to the effect that a man might be able to acquire a great reputation for wisdom, for brains and stability and patience, and yet lose it all in five minutes in talking against woman's suffrage. (Applause.) I am not going to talk against woman's suffrage. In fact, I am for it, but I must say I have some little timidity about it, as I am afraid of what it is going to do to us. Talking about women voting, we are getting to the point where we are timid and cringing. In this connection I am reminded of what happened to one of our educators in New York a year and a half ago at the great woman's suffrage parade. He was a courageous man. He marched in that parade and carried a banner, and he was noticeably far from dignified and impressive as he carried it. It hung limp and all folded and obscure. When he got home his wife said, "John, what was the matter? Why didn't you stand up like a man and carry that banner right and flaunt it out to the breeze?" He said, "My dear, did you see what was on that banner?" She said, "No." "Well, it said, 'Men can vote, why can't I.'" (Laughter.)

I want to say to you that there has always been something the matter with the Chicago Medical Society and until tonight I never knew what it was, but I now know the thing that has been the matter with it is lack of that broad social intercourse which shall include all the workers, that shall include all the family as well as the titular head of the family,—the powers that be. (Laughter.) And I say it very earnestly and seriously and I say it with reference to us medical men perhaps more than to any other class of men; we need as medical men association with our women friends on parade. Our relation to our women friends is one not easy and comfortable, especially for them. I do not think any doctor is ever ungallant enough to feel the limitations of his association with his women patients because it happens to be under conditions when they are not well. Nevertheless, I am sure, women feel that limitation and feel handicapped in their social relations on account of that fact, and I am reminded here of something that was said to me very pointedly by a woman who was an old

patient and a good friend of mine, a neurasthenic and rather complaining. I sat there listening to her tale. Finally she said, "For heaven's sake, take off that expression of 'suffering fools,' gladly." (Laughter.) I did not think I had that expression, but it shows how sensitive she was and how sensitive woman's feelings are if they do not get any associations with their husband's colleagues under the normal conditions which they should. I am very certain—and this I say with great seriousness—that the great problems before the Chicago Medical Society today (and you know what they are), can be better solved, more nearly solved, and more rapidly solved by broader, more universal, more regular social aggregations than in any other way. (Loud applause.)

THE TOASTMASTER: You will now be addressed by our veteran, a veteran not alone in medicine, but also a veteran who fought for and followed the stars and stripes long before his luxuriant hair turned white. The young struggling physician knows no better friend than Dr. Cotton. It is my privilege to introduce to you the sixteen-year-old drummer boy of the Civil War. (Applause.)

DR. ALFRED C. COTTON.

"The attitude of modern Science is erect, her aspect serene, her determination inexorable, her onward movement unflinching." (Oliver Wendell Holmes.)

Mr. Toastmaster, Ladies and Gentlemen: This emblem of freedom and democracy (referring to flag), which has received your enthusiastic approval, should have been presented to Dr. Graham, whose service during the Civil War was more extended than mine.

In the speaking of the ex-presidents of the Chicago Medical Society, in which it seems the drift has been rather personal and somewhat egotistic to be sure, with this emblem before me I am reminded of the camp fire stories told by some of our Grand Army boys who recited the tales of their achievements in the field so often that they actually came to believe them themselves. (Laughter.) One old veteran advised Grant how to take Vicksburg; another showed Meade how to repel the invasion of Pennsylvania, and so on. They are great men around their own firesides, because their own families actually believe more than half of what these old gentlemen say. (Laughter.) So we will accept all that has been said. I cannot help but call attention to the strenuosity of the Chicago Medical Society. If the presidents did go to sleep in the old days, they do not do so in the

modern days, and if Dr. Favill found it a lion-taming job, what do you suppose he left for me as his successor? (Laughter.) In other words, times have changed. The society that was presided over in a somnolent way quadrupled its numbers until it became the largest local medical society in the world, furnishing a worthy forum for the exercise of its true function, that of promulgating science. Fourteen branch societies became necessary with their regular meetings, and more to follow—an entirely different proposition from that which had previously obtained. Modesty forbids me to say, that it required an entirely different kind of man to preside. (Laughter.) From what you have heard of the experiences recited here regarding the manner and method in which the so-called honor has been brought to many of these ex-presidents, you can paraphrase the words of the immortal bard:

Some were born to the presidency;
Others achieved the presidency,
And others had the presidency thrust upon them.

(Laughter.)

It is but natural perhaps for a man to lose the sense of proportion and when he is in the honored position of presiding officer to sort of imagine that he is shaping events. I remember a distinguished President of the United States who said he had Congress on his hands. The president of a medical society may imagine that he has a good many things on his hands in the floodtide of great movements. He may, like a chip borne on the crest, foolishly fancy that he is uplifting the wave that affords him temporary altitude, and may even regard with indifference the other flotsam which, for the instant, is apparently receding in the lower levels of the trough. (Applause.) While presidents are made, they are frequently a mere matter of circumstance.

In looking at this menu card and program, I have figured out perhaps the sentiment expressed was intended for a text, and like my predecessor I mapped out a speech on it, but I have forgotten it. (Laughter.) When I regard the lateness of the hour and the flood of eloquence to which we have listened I feel like the boy who waited with his little sister for the promised moment of the dessert that was served only when guests sat at their mother's table. He watched with great anxiety as each guest accepted a second helping and finally in a burst of grief cried, "Mother, they have eaten up the last charlotte russe." (Laughter.)

My predecessors in this position and in the order of speaking

tonight expressed the belief, and some have spoken positively, that they thought the administration of the Chicago Medical Society during their presidency was the most important in the history of the society. (Laughter.) I do not think the session of the Chicago Medical Society for the year 1908-1909 was the most important in its history—I know it was. (Laughter.) The Chicago Medical Society began to come into its own dating backward through the administration of Brother Favill, and his immediate predecessors, to the time of Health Commissioner Evans. If my memory serves, it was a new era with all the possibilities of organization of the profession of medicine. We do not hear the expression any more in hospitals as quoted by a speaker or anywhere else, “I don’t know that man, nor do I want to know him.” We meet and say, “I know that man; watch him; look out for him.” (Laughter.) We all know each other and we want to be better acquainted. (Applause.)

Dr. Billings has said that without friction there is stagnation. There must be a fight. We do not stand at Armageddon and battle for the Lord, but we move right along and fight for our ideals. This spirit of progressivism is in the air, and in that spirit the Chicago Medical Society has begun to realize its true function, which is dual, not only for the propagation of science with all that means, but for the benefit of its members and of humanity by becoming a factor, by assuming control of utilities for the benefit of mankind and for the benefit of the medical profession. So organization became the watchword and is now the watchword, and this great meeting, for which I congratulate our worthy president, is not a burying of the hatchet because the hatchet will never be buried in the contention of ideas, but it has buried the little rancor that comes sometimes from a too diligent maintenance and a forgetfulness of the personality of a worthy opponent. We are all united for one purpose. We differ sometimes in regard to the method. During the administration over which I happened to preside, for the first time the referendum was successfully applied by the Chicago Medical Society. I think that idea is dear to every democratic organization. For the first time we began to go into utilities, one of which we took up for the benefit of humanity. It was uplifting and life-saving. I refer to the establishment of the Milk Commission of which Dr. Bacon was the worthy first president. That meant his experience and energy in putting on its feet a Milk Commission worthy of the city. A number of milk commissions in other cities were established long before. At the time this Milk Commission was established, there was but one firm in the



vicinity of Chicago that could furnish milk fit for certification. Now, from fourteen farms, over 30,000 pounds of milk above suspicion is certified to and delivered through the agency of our Milk Commission. (Applause.)

My predecessor, Dr. Webster, alluded to the saving of lives. The number of lives saved by the 30,000 pounds of pure, bacteria-free milk, delivered to the children of this city, is beyond computation.

There are a number of other things which I will simply mention, but not enlarge upon at this time, the redrafting of the constitution and the amplification of the branch societies; the establishment of the semi-Australian ballot; the establishment of polling booths in the branch societies to save the confusion of long ballot counting, all these things making for the advancement, the benefaction, and education of its members. (Loud applause.)

THE TOASTMASTER: The next speaker, whom you will hear tonight has been a loyal member of our society for thirty consecutive years, and exemplifies the valuable service that the general medical man can render to the community in which he lives. It gives me very great pleasure to introduce Dr. John A. Robison. (Applause.)

DR. JOHN A. ROBISON.

"The nature of life and of death are questions which occupy the interest of the layman to a greater extent than possibly any other purely theoretical problem." (Jacques Loeb.)

Mr. Toastmaster, Members of the Chicago Medical Society, Ladies and Gentlemen: You have arrived at the point in this mental feast where you expect cheese and coffee and you will all be glad for me to say, "Cheese it!" consequently I will try to make whatever I have to say short. I thought by the time we had arrived to the gray-haired phalanx and reached the juvenile part of the ex-presidents, you would all be tired out and anxious to go. I will say this, however, if Dr. Favill thought he had a hard time while he was president of the Chicago Medical Society, he should have shot the rapids with me. (Laughter.) The current began to flow, when he was inducted into office, and became more swift when Cotton was president, and at the time I entered the voyage, the rapids were running, the rocks were hazy, and the craft had to be guided carefully for fear it would be shipwrecked. I do not quite agree with Dr. Quine in regard to the significance of number 23. He said, ordinarily it is supposed to mean "Skidoo." I was elected by 23, so it did not mean

"Skidoo" for me, but it meant peace and comfort and mental rest. Why? Because of the honor of being president of the greatest local medical organization in the world. (Applause.)

If you want to see a circus just attend one of the council meetings of the Chicago Medical Society. It has been a very exciting function during the past two or three years. It has quieted down a little now. During the year 1909-1910 there were quite stormy times, and there were certain dangers which seemed to prophesy destruction of the organization—at least a number of the society members thought so. One of these rocks was the Collection Bureau, which had been established some years previously and had involved the society in a debt of \$8,000. The council took hold of the proposition. We had an efficient Board of Trustees and they decided to grasp the problem and settle it if they could. They arranged that the bureau should not be run by the Chicago Medical Society, but made a contract with a gentleman to run the bureau at his own risk. This plan was put in operation and tried for a certain length of time, but the result was a failure. Then the Board of Trustees decided that the bureau should be absolutely abolished. This was done. The society has steered around that rock. We did not go upon it and smash but steered around it.

Another rock was the abuse of medical charities. It was during the year 1909-1910 that the greatest activity was manifested in regard to meeting this problem. The committee during that year, with Dr. Fischkin, a very efficient man, at the head, did an enormous amount of work. They prepared the way for carrying out certain ideas and presented plans to the society. The society very cordially endorsed the plans of the committee and attempted to carry them into effect. Unfortunately it has not succeeded up to the present time, but I believe the plans are feasible, and I believe the members of the Chicago Medical Society will take the problem up again and formulate a plan whereby a great deal of the abuse of medical charity that is prevalent in this city may be avoided.

In regard to the scientific work of the year during which I was honored by the presidency, there were during the year very valuable papers read by very noted men from the United States and abroad, twenty-two in number. There were a number of symposia on different medical and surgical topics which were presented by some of our most eminent men and received most careful attention and discussion. The subject of pellagra was brought more forcibly to the attention of the profession during that year, and there were quite

a number of other subjects which received a great deal of attention from the profession.

So far as the scientific value of the work is concerned, notwithstanding the prediction of a great many that it would be a year barren of all scientific results, the records of the society will show that it compares very favorably with any year previous or, perhaps, since. The attendance of the society was a record-breaking one, the average being for the year, two hundred and eighty per meeting. (Applause.)

In regard to the experience of being president, I wish to say I am thankful to the society for having honored me with this office, inasmuch as I discovered how little a man knows about parliamentary law when he thinks he knows a great deal. There was one man in the council who sat at my left to correct me when I was wrong, and he always thought I was wrong. (Laughter.) I soon found out in this position that unless a man is a born parliamentarian, an educated parliamentarian, or an expert parliamentarian like Dr. Favill, he is continually in hot water, but I will say this, so long as I live, and I hope I will live a great many years yet, I will always look upon the year 1909-1910 as one of the pleasantest years of my existence, and upon this night as a night in which I think our worthy president has achieved a great result. (Applause.)

Dr. Cotton has said that there has been a good deal of strife in the Chicago Medical Society. I would not call it strife; I would call it rivalry, a rivalry which may exist and which I hope will continue to exist, not of man with man, but a rivalry of ideas. It is the rivalry whereby men champion the cause which they believe is right, principles which they believe are right, and notwithstanding they may be bitter in their methods of warfare, there is still a brotherly love which exists between all of us. (Loud applause.)

THE TOASTMASTER: The last of the ex-presidents who presided at our meetings, and who is my immediate predecessor, is a gentleman who always stood pat on deciding many important questions before our body. I take pleasure in introducing to you Dr. Patton. (Applause.)

DR. JOSEPH M. PATTON.

"The lock has been turned. The door stands partly open, and we are permitted a glimpse of the future possibilities to be attained in the great fight against disease." (William Osler.)

Mr. President, Members of the Chicago Medical Society, and Guests:

As the most recent addition to the coterie of ex-presidents as-

sembled here this evening, and whom it is your gracious pleasure to honor by this testimonial gathering, I must necessarily be brief, my incumbency being so recent that the perspective value of time has not yet afforded a clear view of the things accomplished during this administration.

Some of the activities of the administrative department of the society for 1911-1912 have necessarily been carried forward to the succeeding or present administration. Therefore, I will not attempt an estimate of the value of the work accomplished during this period.

Among the administrative matters of importance which required adjustment during my term as president were: The reduction in the per capita tax paid to the State Society; the regulation of the financial aid furnished the branch societies by the present body; the final separation of the relations between the society and the so-called business bureau operated as a collection agency; the furtherance of the very important work carried on by the Milk Commission of the society, and the formation of the Commission on Medical Education, whose endeavors, we trust, will aid in bringing order out of the disorder of the local medical educational field.

The speakers who have preceded me have outlined the modest beginning of this society, and traced its history from the scantily attended monthly meetings of the single body up to the present time when we comprise a society consisting of a central body with fourteen branches, and with several affiliated societies. Our membership is about 2,500—one of the largest, if not the largest, local medical societies in the world.

A résumé of the scientific work done by this society is impossible at this time. The best abstract I can give you is to point to the fame and accomplishments of those who have spoken before me; the one extends around the world, and the other has made the world sit up and take notice.

Thus, as Chicago has been developing into a great medical center, the Chicago Medical Society has gradually become a great medical body whose past has been wisely directed and is full of accomplishment, and whose future holds forth a world of promise with all the alluring inducements of great medical advancement. The real history of the Chicago Medical Society is still in the making. The situation is aptly and succinctly expressed in the sentiment on your program to which I am supposed to respond. "The lock has been turned. The door stands partly open." May this society see to it in the future or in the past, that the door of progress be never closed.

In closing I wish to express the obligations of the society to the wives of its members, both those who grace this occasion with their presence and those who are unable to be here, and to apologize for the many interruptions and annoyances they have suffered through council sessions, committee meetings, and scientific gatherings. If in the enjoyment of this occasion they find partial compensation for these annoyances, we are much pleased. Oliver Wendel Holmes has said:

"There are no times like the old times,—they shall never be forgot!

There is no place like the old place,—keep green the dear old spot!

There are no friends like our old friends,—may Heaven prolong their lives.

There are no loves like our old loves,—God bless our loving wives."

(Applause.)

THE TOASTMASTER: Before bringing to a close this epoch-making meeting, the officers of the Chicago Medical Society extend their appreciation and thanks to the Entertainment and Reception Committees for their untiring efforts and valuable services, and to every one who helped to make this affair a glorious success. (Loud applause.)

A BRIEF HISTORY OF THE CHICAGO MEDICAL SOCIETY FROM 1850 TO OCTOBER 1, 1902.*

In the famous year of 1849, when there was a steady western emigration of the younger men of the east, Dr. Nathan Smith Davis became a resident of Chicago, a town of less than twenty-eight odd thousand inhabitants. It was to be expected that he who less than two years before had presented a resolution to the New York State Society which proved to be the birth of the American Medical Association, would join Erial McArthur, David Rutter, Levi D. Boone, and a few other kindred spirits, in agitating the organization of the Chicago Medical Society.

In the year of 1850, invitations were issued to all of the regular physicians and surgeons in Chicago to meet for the purpose of effecting a permanent medical organization. In response, a number of physicians met in a room on Randolph Street and Dr. David Rutter was made chairman of the preliminary proceedings. The Chicago Medical Society was organized, a constitution and by-laws were adopted and Dr. Levi D. Boone was chosen president for the ensuing year.

The establishment of a medical society uncovered the bitter rivalry that existed in the Chicago profession at this period. The majority of physicians who were present at the first meeting refused to attend a second time. Many of those who remained active members at first were more concerned with personal accusations and charges and countercharges of unprofessional conduct than they were with reading and discussing scientific papers.

At the next annual meeting in April, 1851, Dr. William B. Herrick was elected president. During his latter term of office there was rarely a sufficient number attending the meetings to constitute a quorum and permit the transaction of business.

A small number of men met in the office of Drs. N. S. Davis and Alonzo B. Palmer for the annual meeting, April 5th, 1852. They had done their best to awaken sufficient interest to obtain a quorum,

*This history of the Chicago Medical Society, from its incipency in 1850 until October 1, 1902, was compiled by Dr. Emma W. Gillmore, from the old records, which are written in long hand and at present are kept in the secretary's office. All things considered, the transactions are in an excellent state of preservation. Beginning with October 1, 1902, until the present date, the society meets every week with the exception of the summer months July, August and September. The proceedings are published in weekly bulletins and at the end of the active year are bound and filed for reference. The scientific papers read before the central body of the society are published in full, with their discussions.

but were unsuccessful and accordingly it was impossible to elect officers or transact any other business.

Fortunately those members of the profession who were antagonistic, or had conspired to wreck the society, had reckoned without the indomitable organizing ability of Dr. N. S. Davis. Almost before the Chicago Medical Society had ceased to exist on that evening of April 5th, 1852, the handful of men present reorganized the society and rechristened it the Cook County Medical Society. A simpler constitution and by-laws were adopted, with the same code of ethics as that of the American Medical Association. Regular meetings were to be held once a month. Dr. Erial McArthur, who resided outside of the city proper, was elected president and Dr. Hosmer A. Johnson, secretary. Dr. Alonzo B. Palmer was made a delegate to the American Medical Association. Prominent among the few members who were present at the reorganization of the society, but were not elected to office, were Drs. William B. Herrick and N. S. Davis.

The old guard who were sponsors for the new society, who had faith in the organization of medical men, and who possessed a vision that penetrated into the possibilities of the future, sought for the maintenance of the Cook County Medical Society among the younger members of the profession, not only in Chicago, but in Cook County. They met regularly once a month in various physician's offices, were mutually inspired with enthusiasm and steadfastness, and the society prospered.

Dr. DeLaskie Miller and Dr. William E. Clarke were proposed for membership of the Cook County Medical Society on January 3rd, 1853. The April following Dr. Miller became secretary of the society and in 1856 was made its president. Twenty-two years afterward, 1875, Dr. Clarke was elected president of the Chicago Medical Society.

January 2, 1857, Doctors Ira Hatch and Swayne Wickersham were duly elected members of Cook County Society. From then on we find their names, especially Dr. Wickersham's, upon the pages of the transactions of the society, taking active interest in the proceedings. Dr. Hatch was elected president of the Chicago Medical Society in 1861, followed by Dr. Wickersham in 1862.

The Cook County Medical Society had been in existence a little over four years before its active secretary, Thomas Bevan, at the September meeting in 1857, mindful that the official papers should be dignified with the stamp of the organization, moved that a seal be provided for the society. Dr. Wickersham followed immediately with a motion that the secretary be appointed a committee to procure one.

Dr. Wickersham presented a resolution on August 3rd, 1858, in favor of changing the name of Cook County to Chicago Medical Society. This resolution was adopted and on September 7th, 1858, the medical organization met once more as the Chicago Medical Society.

The records of the society give us but little evidence of the existence of the Civil War with the exception that on April 19, 1861, Dr. Orren Smith presided and Dr. Wickersham offered the following resolution: "Resolved, that the medical and surgical services of the Chicago Medical Society will be gratuitously rendered, if solicited, to the families of the Chicago volunteers, who are called into service of our country, until they return to their homes or until our nation's difficulties are adjusted."

October 18, 1861, Dr. E. L. Holmes, secretary pro tem, recorded that a resolution was passed for the society to meet every Friday in the month, except the first Friday.

As would be expected, during the years of 1861, 1862 and 1863, the members were significantly interested in gun-shot surgery, the dangers attending the administration of ether in amputations, camp diarrhoea, etc.

May 1, 1863, Dr. N. S. Davis moved that the meetings of the society be held on the first Friday of each month until otherwise decided and on September 11, 1863, it was voted to resume the weekly meetings on Friday.

Not until December 16, 1864, was it "Resolved, that hereafter all proposals for membership should be referred to a committee of three appointed by the president, whose duty it shall be to investigate the character of the applicants, both moral and professional, and report within a month." Dr. Wickersham moved as an amendment "that the new members be elected by ballot." The resolution with the amendment was adopted.

Much scientific enthusiasm must have existed on the evening of November 17, 1865. Secretary D. Tucker Mills reported that the members discussed "Purulent Ophthalmia of Infants" until one o'clock in the morning.

During 1865, extending into '84 and '85, and even to September 10, 1892, when Dr. N. S. Davis read a short paper entitled "The Best Means for Preventing the Development of an Epidemic of Cholera," the members of the society were concerned periodically about the spread of cholera.

In the year 1865, July 7th, Dr. Wickersham made a motion that

a committee should be chosen, with Dr. N. S. Davis as chairman, to remonstrate with the daily papers for printing obscene advertisements and also to congratulate the editor of a newspaper called *The Republican* upon his course in such matters. From time to time in the future records we find the chairman fighting, with his customary persistency, against advertisements that have a tendency to lower the moral standard of the laity and decrease the dignity of the medical profession.

November 10, 1865, Dr. William Thomas Green Morton of Boston addressed the society on anaesthesia. At this meeting it was moved that a committee should be appointed "to draft a preamble and resolutions to bring the subject discussed by Dr. Morton more prominently before the people, with a view that some substantial recognition should be made of Dr. Morton's claim as the originator of the adaptability of the present mode of administering sulphuric ether."

The only suggestion that is found of the nation's loss in the tragedy of Abraham Lincoln's death, is almost two years after his assassination. December 13, 1867, Dr. Joseph P. Ross presided and appointed Doctors M. O. Heydock, E. L. Holmes, G. C. Paoli, N. S. Davis, and Curtis Fenn, a committee to consider the wisdom of the members of the society signing a petition requesting that the physician who was then imprisoned (Dr. Mudd) for caring for the wounds of Lincoln's assassin should be released. The members of the society were of various opinions in regard to the ethical position of the unfortunate doctor.

April 13, 1866, Dr. Roswell G. Bogue was proposed for membership by Drs. E. L. Holmes and Thomas Bevan. Dr. Bogue was elected president of the Chicago Medical Society in 1869, and ten years later, 1880, was re-elected to that office. Dr. Thomas Davis Fitch was one of the sponsors presenting the name of Ephraim Ingals on April 20, 1866. Dr. Ingals possessed the unprecedented distinction of being elected president four successive years: 1876, '77, '78, and '79, and again in 1881.

Dr. T. D. Fitch as secretary of the society, April 5, 1867, 17 years after its organization, reported that "the past year is one of unusual prosperity." The year before there were 66 "good and active members" and "the society now has 86 members in good standing."

Dr. Fernand Henrotin was balloted for and unanimously elected to membership December 13, 1869, and 28 years afterward was elected president of the society.

March 21, 1870, Dr. William E. Quine was proposed for membership by President Bogue and a future president, T. D. Fitch. A year later Dr. Quine was elected secretary of the society, and in 1874 was made its president.

The last meeting recorded of the Chicago Medical Society before the great fire of October 8, 1871, left the city in ruins, was June 12, 1871. President John Reid was in the chair and there were 40 members present. The next meeting which Secretary Quine records is April 1st, 1872. Twenty years afterward, President Daniel R. Brower in his annual address, April 4, 1892, stated that "the records of the society were destroyed by the fire of 1871 and much interesting history thereby lost forever." It is probable that President Brower had reference to a few of the meetings of which we have no record, from June 12, 1871, to April 1, 1872. Only the record of those meetings held after June 12 and before October 8, 1871, could have been so destroyed. The society owes Dr. Quine a debt of gratitude as the guardian of its records from 1850 to June 12, 1871, that all of the transactions of the society were preserved. The first record of a meeting after the fire is April 1, 1871. "A Brief History of the Chicago Medical Society," prepared by Dr. N. S. Davis and read before that society by Dr. Lyston Montgomery, October 18, 1880, states that "In the confusion and horror of the great fire in October, 1871, there was only a short interruption. Dr. Davis invited the members of the society to meet at his residence on Wabash Avenue, and from there they moved to a court room which remained intact in the partially burned court house on the public square, until the work of rebuilding had so far progressed as to furnish more convenient places." Undoubtedly the reaction of this disaster made itself felt for several years to come. When the Chicago Medical Society was called together for its annual meeting, June 2, 1873, a quorum was not present. Notwithstanding this, a motion was made to proceed to business and officers were elected for the ensuing year. Dr. Charles W. Earle moved that Secretary Quine be instructed to notify all the members of the society by mail that the special order of business for the next meeting would be the reorganization of the society. The secretary reported that he found much difficulty in tracing the names of the members and obtaining their new addresses. For months following, an average of only 8 to 10 loyal members attended the medical meetings.

Not until 1876 did the society seem to completely readjust itself and enter into a period of renewed activity.

March 17, 1877, Dr. William T. Belfield was proposed for mem-

bership and ten years later was elected president of the Chicago Medical Society.

February 17, 1879, the society listened to a lecture from Dr. Ephraim Culler of Boston on "Hereditary Taints in the Blood," which was illustrated by micro-photographic slides.

March 22, 1880, the reader is impressed with the truth that history repeats itself in cycles. With the same vigor of protest that was to be heard nearly three decades hence, it is recorded that the committee on The Abuse of Medical Charities believe: "that a somewhat extensive 'ring' controls the administration of medical charity and that within the 'ring' a few older professors dominate over all the rest. Nor is this the case only in regular circles. It holds just as true among the 'irregulars.'" Furthermore, this committee believe: "that a physician's prescriptions ought to be regarded as his personal property" and that, "druggists and apothecaries all over the city pour drugs of which they know little into bodies of which they know less." We who today pride ourselves on defying traditions as our forefathers dared not, should read that this committee find that: "doubtless the clerical profession is an eminently respected one * * * but we claim the same of our own profession * * * the clergymen who are ambitious for city congregations and splendid churches with proportional salaries, ought to be ashamed even to think of accepting gratuitous service from a physician. Your committee are most heartily in favor of the maxim, 'Pay as you go' for the luxuries as well as the necessities of life." Dr. E. Powell, who read the report, Dr. F. H. Davis, Dr. F. C. Schaeffer, and other members of the committee, "concurred in the report fully, as it now stands." On the motion of Dr. R. C. Hamill the report was accepted.

Secretary Ralph E. Starkweather at the thirtieth annual meeting of the society, April 5, 1880, says that the "average attendance of the present total of members (182) is $7\frac{3}{5}\%$. Compared with a statement of numbers of attendance of 18 churches a percentage of over 2% above that of the churches: $7\frac{3}{5} : 4\frac{4}{5}$." At this same meeting Dr. Bogue was elected president and Liston H. Montgomery secretary. At the following meeting, April 19, 1880, Drs. J. H. Hollister, De Laskie Miller, and Ephraim Ingals offered a memorial of the late Dr. Thomas Bevan. The secretary recorded the exceptionally excellent biography in detail.

Early in 1881, the members protested against the laxity of requirements for the admittance of students to medical colleges. They were interested in having a state law passed to regulate the qualifica-

tions of physicians practicing in Illinois. The society pledged its support of the Illinois Training School for Nurses. On the sixth of December of the same year Dr. Christian Fenger read a paper of much scientific interest to the members entitled, "On the Use of the Endoscope in the Treatment of Gleet, Chronic Gonorrhoea, and Chronic Rheumatism."

Dr. John A. Robison was proposed for membership June 12, 1882, and some 26 years afterward was elected president of the society.

January 8, 1883, Drs. J. H. Hollister and L. H. Montgomery proposed a future president for membership, Dr. James H. Stowell. The following 18th of June, Drs. L. H. Montgomery and James H. Etheridge presented the name of Edmund J. Doering, another future president, for membership. September 26, of the same year, Chicago Medical received its first foreign visitor, Sir William MacCormac, "the eminent senior surgeon of St. Thomas' Hospital, London, was entertained at a reception at the Grand Pacific Hotel. Drs. S. J. Jones and R. S. Bogue escorted Sir William to the parlor and Dr. David W. Graham, the president, welcomed him."

The year 1884 was rich in presidential timber. March 17th, Drs. Frank Billings and Lewis L. McArthur were elected to membership. April 7th, Dr. Harold N. Moyer was proposed for membership, and on August 4th, Dr. George W. Webster's name was handed over to the Committee on Membership.

April 20, 1885, Drs. David W. Graham and E. F. Ingals proposed the membership of Dr. Alfred C. Cotton, who was to be elected president 23 years later.

June 1, 1885, Secretary Montgomery inserted for the first time the typewritten abstract of a medical paper read before the society as well as "the official stenographic reports of the discussion." The published medical journals which are from then on frequently pasted upon the blank leaves of the secretary's books lessen the large amount of work which previously was necessarily done in long hand.

October 5, 1885, before the discovery of antitoxin had robbed diphtheria of its terrors, Dr. F. E. Waxham, who was soon to become an authority and an expert on intubation, read a paper before the society entitled: "Intubation of the Larynx, with a Report of Five Cases."

Two more future presidents were elected to membership of the society, on January 4th, 1886: Drs. Charles S. Bacon and Jacob Frank.

Secretary Montgomery recorded that on April 5, 1886, the society had "the largest attendance in our history, not less than 123 members and 8 visitors attended."

January 17, 1887, Dr. J. J. M. Angear announced "that in-as-much as word had been sent here this evening by Dr. Wm. E. Quine that the 50th anniversary of Dr. N. S. Davis' graduation in medicine was at hand, he moved that the president of the society appoint a committee of three to draft suitable resolutions of esteem and regard pertaining to his labors and character." February 7th, while Dr. Davis was in the vigor of health and could appreciate it, Dr. Quine, in the name of the Chicago Medical Society, presented him with the committee's declaration. The typewritten testimonial stands out as clear and as forceful as when it was first put in the records, 27 years ago.

April 4, 1887, Dr. Montgomery, after serving the society for 7 years as its secretary, resigned from office, to be followed by Dr. Frank Billings.

A faithful future secretary and president was reported favorably upon by the membership committee July 18, 1887: Dr. Junius C. Hoag.

November 5, 1888, Secretary Billings tendered his resignation and Dr. J. C. Hoag was elected secretary, which office he held continuously for 8 years.

February 4, 1889, Secretary Hoag moved "that a committee be appointed by the chair to inform the State Board of Health of the attitude of the society, and to encourage action, in the instruction of midwives, particularly in the matter of personal cleanliness and the use of antiseptic agents in the pursuit of their vocation."

February 21, 1889, the committee on membership passed favorably on the application of Dr. John B. Murphy, who was to be elected president of the society in 1904.

President James H. Etheridge, on March 18, 1889, made a strong plea to the members of the society to take more interest in research work. He suggested a standing committee on original work, with 20 or 30 original work committees. He said that the annual income of the society was about \$1,500.00, that the expenses were small, and that of this sum \$900.00 could easily be awarded for prize money that would stimulate research work. He urged the appointment of a committee on prize essays. In this address President Etheridge called attention to the need of annual banquets so that the members might come into closer social relations.

At the annual meeting of April 7, 1890, Secretary Hoag spoke of the difficulty of obtaining names of past members of the society, due to the unsatisfactory method in vogue in the past of keeping the records. He mentioned the advisability of having the proceedings printed and an interchange of bulletins with other societies. He suggested that he be instructed to incorporate a brief history of the society with the constitution, by-laws, and list of members, for distribution. At that meeting, Dr. David W. Graham reported in behalf of the library committee that:

"1. The Chicago Public Library for lack of funds and other reasons showed a growing disposition to abandon the idea of a medical reference department and has finally decided to do so.

"2. The Newberry Library has begun a medical reference department and the prospect is that it will be enthusiastically maintained.

"3. The Medical Library Association has turned over the collection of books which it has begun to the Newberry Library."

August 19, 1889, the committee reported favorably on the application of Dr. Joseph M. Patton, who in 22 years from that time was to be elected president of the society.

The application for membership of Dr. Nicholas Senn was read before the society May 18, 1891, and on that same occasion the secretary reported that Dr. Senn read an able paper entitled, "Away with Koch's Lymph." The following July 20th, Arthur Dean Bevan, elected president of the society in 1898, was proposed for membership. Three months later, October 19, 1891, Robert B. Preble, also a future president, was elected a member of the society.

A futile attempt to stay the hand of a new departure in architecture for utilizing to the limit the valuable space in the business district of a great city, was shown at the meeting of July 20, 1891. Dr. Lyman Ware moved that "a committee of three to be appointed by the president, be instructed to wait upon the Mayor and the Real Estate Board, for the purpose of securing legislation to prevent the erection of high buildings at the expense of air and health." Drs. Lyman Ware, H. N. Moyer, and G. W. Webster were appointed on this committee.

December 19, 1892, President Ferdinand C. Holz recommended that the matter of a permanent or temporary location for the Chicago Medical Society be considered. At the next annual meeting, in the following April, Secretary Hoag, watchful of the records under his care, announced that when Dr. Wickersham was Health Commis-

sioner, the records of the office were kept in the vault of his office in the City Hall. The Health Commissioner following Dr. Wickersham had extended the same courtesy and the "records at present" were then preserved in the vaults of the City Hall.

There were 85 members present on October 16, 1893, the last meeting at which President Charles W. Earle presided. November 6, the second vice-president, Dr. Harold N. Moyer, mentioned the serious illness of President Earle, and on the 20th of that month announced his death. Beginning with December 18, Dr. Lewis L. McArthur, the first vice-president, occupied the chair for the remaining year.

At the annual meeting, April 2, 1894, the announcement was made of Dr. Nicholas Senn's gift of over 10,000 books to the Newberry Library. On this date Dr. Senn was elected president of the society.

Secretary Hoag turned prophet at the 42nd annual meeting, April 2, 1894. In his report he said: "We already have a large membership. * * * It is not necessary to dilate upon the possibility within reach of a metropolitan society of medical men and women with a membership of 1,500, or 2,000, for they are easily imaginable to you all." At this present writing, April 1, 1913, the Chicago Medical Society has 2,372 active members in good standing and 100 odd non-resident members.

The year 1894 was conspicuous in furnishing members who were to become future presidents. January 27th, Dr. William A. Evans' application was received for membership. June 4th, Henry B. Favill was reported on favorably for membership. September 17, the late Alexander H. Ferguson's election as a member was recorded.

A disease which is probably doomed in the near future to be known in civilized countries only in medical literature sings its swan song before the Chicago Medical Society May 21, 1894. Drs. William E. Quine and A. R. Reynolds present a paper entitled "Extermination of Smallpox in Chicago."

The last meeting held by the Chicago Medical Society in April was on the fifth of that month, 1897. Dr. H. N. Moyer presided and Dr. A. R. Edwards officiated as secretary. December 1, 1897, it was moved "that the voluntary association known as the Chicago Medical be dissolved and cease to exist, and that the Chicago Medical be incorporated under the law of Illinois, and that the officers of this society take the necessary steps to execute proper measures to invest the new society with the property and rights of the old society at

once." It was moved and seconded that "the officers of the society hold office till the date of the annual meeting in June, 1898."

June 20, 1900, Secretary Plummer at the annual meeting informed the members that the records of the Chicago Medical Society had been carefully stored in the Columbus Memorial Laboratory vaults.

At the 49th annual meeting, June 19, 1901, Dr. Arthur R. Edwards nominated Dr. Frank X. Walls for secretary. This office Dr. Walls retained until 1906. During this period the society enjoyed unprecedented popularity. One hundred members were present at the first fall meeting. February 12, 1902, the Secretary states that the Chicago Medical Society was entertained by Mercy Hospital, where there were about 500 members and guests present. The last long-hand report of the transactions of the society was made by Secretary Walls May 27, 1902. At that meeting Dr. W. A. Evans presided and over 200 members were present.

Beginning with October 1, 1902, the Society meets every week, the proceedings are published in weekly bulletins, and at the end of the active year the reports are bound and preserved in book form.

The Chicago Medical Society has been peculiarly fortunate in two of its secretaries: Dr. Liston H. Montgomery, who served the society from April 19, 1880, to April 4, 1887, and Dr. Junius C. Hoag, who was secretary from November 5, 1888, until April 5, 1897, seven and nine successive years respectively. Condensed in the reports of these two men we are able to trace the evolution of the doctor and medicine as clearly as if a moving picture were thrown upon the screen before our eyes. Secretary Montgomery has handed us a heritage in which the personal equation predominates. Many of the medical articles are reported with painstaking detail in long-hand. There is a distinctive intimacy about the unexpunged discussions of the papers and the business of the society that suggests an interpretation of the personnel of the members. Secretary Hoag impresses us less with the personal atmosphere, but he has set before us the skeleton of the progress of medicine itself with no unmistakable clearness.

Had the advice of President Etheridge been taken seriously 24 years ago, Chicago might well have been at this present writing the greatest center of medical research in America. If the suggestion of President Holz, 21 years ago, had caught fire, the Chicago Medical Society would now probably have a permanent home, and the precious records which we possess safely preserved in fireproof vaults of our own.

October 18, 1880, 33 years ago, Dr. N. S. Davis wrote that "of

the whole number who had participated in the foundation of the Chicago Medical, 20 years before, not more than five or six are known to be living, and only one" (the noblest Roman of them all without doubt modestly refers to himself) "has retained his membership unbroken until the present time."

Secretary Hoag, April 7, 1890, ten years later, in his annual report suggested that he be invited to write a history of the society. If this had been done the secretary would have possessed the co-operation of those living at that time, and many reminiscences would now be cherished by us which have been lost beyond recovery. Undoubtedly, when Secretary Hoag prognosticated in 1894 the possibility of a Chicago Medical membership of 2,000, there were those present who believed that he was a visionary. The possibilities of future medicine and the great factor that the Chicago Medical Society may be in this community, as well as its far-reaching influence, is beyond conception. For this reason the past and the present records will be of inestimable value to the student of medicine in another century.

In 1850, when the society was organized, until the present writing, 1913, there have been 63 presidential nominations and 56 individual presidents. Of this number there are 20 living ex-presidents and one president. At the suggestion of Dr. Jacob Frank, who now occupies the president's chair, an ex-president's banquet was held at the Sherman House on the anniversary of Abraham Lincoln's birthday, Wednesday evening, February 12, 1913. All of the living ex-presidents were present. It is well that this event should be added to the history of the society so that future generations may know in what high esteem the memory of those men whose names are spread upon the transactions of the society as its faithful sponsors and active workers, are held. It is due to Dr. Frank's forethought that the toasts which were given on that memorable evening were taken down in short-hand and are incorporated in this brochure.

THE CHICAGO MEDICAL RECORDER

AND
JOURNAL OF THE MEDICO-LEGAL SOCIETY
Pullman Building, CHICAGO

EDITORIAL BOARD

DR. E. W. ANDREWS	DR. FRANKLIN H. MARTIN.
DR. FRANK T. ANDREWS.	DR. JOSEPH MATTESON.
DR. CHARLES C. BEERY.	DR. FREDERICK MENGE.
DR. R. W. BISHOP.	DR. THOS. J. WATKINS.
DR. JAMES BURRY.	DR. SAMUEL C. PLUMMER.
DR. HENRY T. BYFORD.	DR. ARTHUR R. REYNOLDS.
DR. FRANK CARY.	DR. HOMER M. THOMAS
DR. E. J. DOERING.	DR. H. H. FROTHINGHAM.
DR. JUNIUS C. HOAG.	DR. OTTO L. SCHMIDT.
DR. FRANK S. JOHNSON.	DR. D. A. K. STEELE.

DR. A. CHURCH.

COMMITTEE ON PUBLICATION

E. J. DOERING	A. R. REYNOLDS	HENRY T. BYFORD
---------------	----------------	-----------------

Vol. XXV. No. 4.	PUBLISHED MONTHLY.	SINGLE COPIES 20 CTS.
NEW SERIES.	Chicago, Ill., April 15, 1913.	\$1 A YEAR IN ADVANCE.

Editorial.

TO MEMBERS OF THE CHICAGO MEDICAL SOCIETY:

It will be of interest to remind the members of your Society that THE CHICAGO MEDICAL RECORDER published your papers and proceedings for nearly twenty years. In February, 1903, the reasons for discontinuing this service were given as follows:

"THE CHICAGO MEDICAL RECORDER will in large part cease its official relations with the Chicago Medical Society after the completion of the present volume. THE RECORDER was established for the purpose of publishing the proceedings of the Society and since that time has furnished every member gratuitous copies. With the exception of the first year or two, during which time the Society paid sufficient towards THE RECORDER to cover the cost of mailing, it has never received a dollar from the Society during this period. On the contrary, it has given prizes for original work presented before the Society of \$1,000. Twenty-four volumes of the transactions of the

Chicago Medical Society in this form are to be found upon the shelves of the principal libraries of this country and abroad. This work has been done unostentatiously, and the character of the journal for cleanness and fairness has never been questioned. We feel a degree of satisfaction in the work that has been accomplished. We propose to continue *THE RECORDER*, but on broader lines, no longer being confined to the proceedings of the Chicago Medical Society, but at liberty to receive the best material from whatever source and reject that of an inferior character. Recently the burden of supplying nearly fifteen hundred copies of *THE RECORDER* monthly, without pay, has become unreasonably large, and *THE RECORDER* welcomes the change which is to be made. Already in its present form it has secured a very satisfactory circulation outside of the Chicago Medical Society, both in the city and the adjoining states. We thoroughly appreciate our obligations to our friends in and outside of the Society whose continued favor we hope to enjoy."

These predictions have been more than fulfilled. *THE RECORDER* today reaches many times the number of physicians it did in 1903, showing conclusively that the profession want an independent journal identified with this city, having but one purpose—to reflect the medical and surgical activity of Chicago.

THE NEW SECRETARY.

The lamented death of Dr. James A. Egan, late secretary of the state board of health, opens up to the appointing power of the state a responsibility and an opportunity. Whether the position is under the civil service commission of the state or one to be filled by appointment of the governor matters little, if all concerned are keenly alive to the fact that the position is one of the most important in the state.

None but a trained sanitarian with experience in an executive capacity will do. Not only does the position demand these qualities in the incumbent, but it requires also one who has been successful in similar work.

It will not do to fill the position with a time server or to pay a political debt. The times demand that the new secretary be a top notch medical man. There are many in the state who will do and there can be no objection to taking the right man from outside the state if he can be found.

OLD AGE PENSION.

In the *MEDICAL RECORDER* of December, 1912, we editorially referred to the "new era in medicine," and briefly discussed the social insurance in Germany and the Lloyd George bill in England, and predicted that some such move would soon be made in this country either in the states or in the Federal Congress, and that physicians who must form an important factor in the scheme should inform themselves at once and take part in any movement that was inaugurated.

On April 8th Representative Medill McCormick of Chicago, introduced a bill in the Illinois legislature providing for the creation of a commission of nine, three from the house, three from the senate, and three outside—one to be representative of agriculture, one of labor, and one of manufacturing. It will be seen that there is no provision made for a representative of medicine.

The purpose of the commission is to "inquire into the social and economic aspects of old age pensions, payable wholly or in part out of the treasury of the state of Illinois."

We hope the commission will be created and if it is the physicians of the state should take part in its deliberations vigorously. Old age pension is closely allied with the German and English plan of offering a national solution of the question of aid to all needy persons of whatever age. Something better than the present plan of private relief to the poor is urgent. The whole question not only of the relief of poverty but its prevention should be discussed speedily. Paupers and mendicants should not exist in any land of plenty in this enlightened age, and we hope for the success of any plan that looks toward betterment.

PREVENTING FLOODS.

At the Rivers and Harbors Congress recently held in St. Louis there was discussion of ways and means of preventing disastrous floods. From meagre news dispatches we learn they have recommended the building of reservoirs at the head waters to keep back the mountain flow, and the necessity of creating a federal authority to investigate the question and provide a remedy.

The only remedy so far applied is to build up the banks of the streams higher and higher, and to make them stronger and stronger. All this forces the water up into the air into an unnatural and dangerous position. It may not be new but it can do no harm to

suggest that low areas along the banks of dangerous streams might be set aside to be filled by freshet waters when they come, being drained again after the freshet is past. Such areas would not be wasted land as they could be planted with suitable trees or would be valuable for grazing and probably for other crops.

The only remedy for such disasters as came to Dayton and other cities situated similarly is to move them up to higher ground.

Book Reviews

ANNUAL REPORT OF THE SURGEON GENERAL OF THE PUBLIC HEALTH SERVICE. 1912.

This most valuable report of our splendid Public Health Service should be read by all interested in health problems and sanitation. Among the many interesting topics considered, space prevents us from mentioning but a few: Typhoid fever investigations, sanitary survey of the Great Lakes and Missouri watershed, investigations of measles, typhus fever, trachoma, spotted fever, pellagra, hookworm, poliomyelitis, studies of cholera, leprosy, supervision of viruses, serums, toxins, sanitary reports and statistics, the work accomplished in the Hygienic Laboratory, etc. Few of us have an idea of the vast amount of work which is done by this well equipped and most efficient Public Health Service.

NERVOUS AND MENTAL DISEASES. For Students and Practitioners.

By Charles S. Potts, M. D., Professor of Neurology in the Medico-Chirurgical College of Philadelphia. New (third) edition, enlarged and thoroughly revised. In one 12mo volume of 610 pages, with 141 engravings and 6 full-page plates. Price, cloth, \$2.75 net. Lea & Febiger, Publishers, Philadelphia and New York, 1913.

This well arranged handbook appears in its third edition with certain minor changes and some additions, making it a satisfactory compend for students and perhaps for practitioners. The author has brought together from various sources, to all of which he gives due credit, well arranged material and satisfactory illustrations of the conditions set forth. As an introduction to more extensive works or as the basis for class work and review, it answers an excellent purpose.

A. CHURCH.

THE NEW STANDARD FORMULARY. By A. Emil Hiss, Ph. G., and Albert E. Ebert, Ph. M., Ph. D. Chicago: Engelhard & Company. 1912.

This volume contains an enormous amount of information, anything from removing mildew spots, cleaning silverware, up to the preparation of elixirs, emulsions and any other pharmaceutical preparation.

The work is divided into six parts. Part I deals with strictly pharmaceutical preparations, as found in the U. S. Pharmacopeia, the National Formulary, British and German Pharmacopœia and many

other sources. Part II contains a list of the principal domestic and veterinary remedies. Part III contains the synthetic and proprietary preparations. Part IV, perfumes and toilet articles. Part V, soda fountain beverages. Part VI contains much valuable information grouped under the heading of "Domestic Utilities."

It will be readily seen that such a book is indispensable to the druggist and country physician. We regret that the metric system has been discarded, as a book of this kind could do much to make this system more popular among druggists.

EPIDEMIC CEREBRO-SPINAL MENINGITIS. By Abraham Sophian, M. D., Formerly with New York Research Laboratory. Twenty-Three Illustrations. St. Louis: C. V. Mosby Company. Price, \$3.00.

This is a most timely and exceedingly interesting monograph on the subject of epidemic cerebrospinal meningitis. We believe that this is the only monograph on this important disease which has so far appeared in the English language, and we are fortunate in having it written by so competent a man as Dr. Sophian. The studies of the author in the Research Laboratory of New York and the Texas epidemic of last year, have afforded him the opportunity of using both clinical and laboratory observations in controlling this epidemic and giving the profession the results of his experiences.

After describing the etiology, symptomatology, and laboratory diagnosis of meningitis, the author treats of complications, blood pressure and finally the treatment, naturally giving very large attention to anti-meningitis serum and the most excellent results obtained therewith, including its preparation, standardization, and methods of injecting the serum, description of the apparatus used, when to discontinue the further injections, treatment of complications and sequelae. We earnestly urge a careful study of this important contribution to the modern treatment of this disease.

HEREDITY AND EUGENICS. A Course of Lectures Summarizing Recent Advances in Knowledge in Variation, Heredity and Evolution and its Relation to Plant, Animal and Human Improvement and Welfare. By William Ernest Castle, John Merle Coulter, Charles Benedict Davenport, Edward Murray East, William Lawrence Tower. Chicago: The University of Chicago Press.

An unusually interesting and instructive series of lectures delivered at the University of Chicago under the auspices of the biological department. We desire to show the scope of these lectures by

giving the titles. Prof. Coulter, of the University of Chicago, on "Recent Developments in Heredity and Evolution"; Prof. Castle, of Harvard, on "The Method of Evolution, Heredity and Sex"; Prof. East, of Harvard, on "Inheritance in the Higher Plants and the Application of Biological Principles to Plant Breeding"; Associate Prof. Tower, of Chicago, on "The Recent Advances Concerning the Modification of the Germinal Constitution of Organisms by Experimental Processes." The concluding lectures on "The Inheritance of Physical and Mental Traits of Man and Their Application to Eugenics" and "The Geography of Man in Relation to Eugenics" are by C. B. Davenport, of the Carnegie Institution of Washington.

Every progressive medical man should keep in touch with these biological investigations, and these excellent lectures will afford him a fund of knowledge not easily obtained elsewhere.

ORGANIC AND FUNCTIONAL NERVOUS DISEASES. A Text-Book of Neurology. By M. Allen Starr, M. D., Ph. D., LL. D., Sc. D., Professor of Neurology, College of Physicians and Surgeons, New York. Fourth edition, enlarged and thoroughly revised. Octavo, 970 pages, with 323 engravings and 30 plates in colors or monochrome. Cloth, \$6.00 net. Lea & Febiger, Philadelphia and New York, 1913.

The fourth edition of Dr. Starr's well known book brings this now classical treatise up to the latest practical views of the neurologist. The great value of the work is its strong personal feature. The author's many years of experience as a practitioner and teacher are reflected on every page, and one is compelled to feel that the views therein expressed have been reached through the channel of a mature and reliable judgment; but aside from this very valuable aspect of the work it is comprehensive to a most admirable degree.

The arrangement of the book remains practically the same as before. The opening section on the structure of the nervous system is followed by Part II dealing with organic nervous diseases, divided into (1) a section on injuries and diseases of the nerves, (2) diseases of the spinal cord, (3) diseases of the brain, (4) general diseases of the nervous system. In Part III, functional diseases are presented; in Part IV, the sympathetic nervous system and its diseases.

The only serious omissions observable are the recent interesting developments of physiology and neurology associated with disturbance of the ductless glands, particularly the pituitary.

As a working tool for the busy practitioner and as a text-book for the student it is entitled to a very prominent position, and is

essentially a readable book. A wealth of illustrations taken from the author's own cases and from the best in neurological literature greatly enhances the value of the text, and all is made available by a carefully arranged index.

The advanced and peculiar German views of Freud and his followers find practically no place in these pages, and this seems proper inasmuch as these views have not received the most general acceptance in the neurological world.

A. CHURCH.

TUBERCULIN IN DIAGNOSIS AND TREATMENT. By Francis Marion Pottenger, A. M., M. D., LL. D., Medical Director of the Pottenger Sanatorium for Diseases of the Lungs and Throat, Monrovia, California. Thirty-five Illustrations, including one Colored Plate. St. Louis: C. V. Mosby Company. Price, \$3.00.

This interesting study embraces the results obtained in treating over two thousand patients with tuberculin, in all stages of tuberculosis. Nearly all of these have been treated by the author in a private sanitarium under his personal supervision. He is an ardent supporter of tuberculin treatment and his book is worthy of careful consideration.

After dealing with the importance of tuberculin in the early diagnosis of tuberculosis, he claims for tuberculin in the treatment of tuberculosis that it increases the percentage of cures, prevents spread of infection, lessens complications, shortens the term of treatment, prevents relapses,—in short, that the theory of the action of tuberculin is justified by the practical results obtained. A most important chapter is the one on the technic of administering tuberculin, the non-observance of which probably explains failure by others. We cordially recommend this book to all interested in this subject.

KEEN'S SURGERY, VOLUME VI: The Volume with the Newest Surgery. By 81 eminent surgeons. Edited by W. W. Keen, M. D., LL. D., Hon. F. R. C. S. (Eng. and Edin.), Emeritus Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia. Octavo of 1117 Pages, with 519 Illustrations, 22 in Colors. Philadelphia and London: W. B. Saunders Company, 1913. Entire work, consisting of six volumes, per volume: Cloth, \$7.00 net; Half Morocco, \$8.00 net.

The great American surgeon, W. W. Keen, needs no monument to keep his memory alive after he shall have passed on. His great services to his city, his state, his country, have enrolled him in the hearts of his countrymen and given him undying fame in the annals

of this country. Nevertheless we still owe him another debt of gratitude in having given the profession his great system of surgery, to which with his usual untiring zeal and industry he has just added a supplement to bring all the preceding volumes up to date, though it be but a few years since the first edition appeared.

This new volume of over 1,000 pages containing 519 illustrations, many in color, is in itself a system of surgery. Among the newer subjects more fully discussed may be mentioned first of all Thoracic Surgery, Meltzer and Auer's method of anesthesia by intratracheal insufflation, anesthesia by the intravenous introduction of ether, treatment of cancer by radium, fulgration and desiccation, salvarsan in syphilis, iodine as a disinfectant, etc. As the authors embrace the best known names in surgery, and Keen's Surgery being the best known authority in matters surgical, we will not even attempt to give a résumé of the treasures contained in this volume, which certainly will be found in the library of every surgeon in this country and abroad.

We wish to call attention to the fact that this volume also contains a general index to all the six books.

In conclusion we once more desire to express the profound admiration we all feel for William Williams Keen, who we hope will live yet many years among us to see the fruits of his prodigious labors for the best interests of the medical profession in these United States.

SYSTEMATIC CASE-TAKING. A Practical Guide to the Examination and Recording of Medical Cases. By Henry Lawrence McKisack, M. D., M. R. C. P. Lond. Physician to the Royal Victoria Hospital, Belfast, Author of "A Dictionary of Medical Diagnosis." New York: Paul B. Hoeber. 1913.

This little book is really a gem. Any student who will read it carefully will be taught not only how to obtain the information he has to record, but also the diagnostic significance of the several symptoms discovered. It does not attempt to go into biology and pathology, but does treat the practical side of medicine, the ordinary examination and diagnosis as made at the bedside of the patient, including the examination of the urine. An appendix gives tables of differential diagnosis of painful throat affections, treats of micro-organisms in the urine, Widal's reaction, Wassermann's test, tests for tuberculosis, etc. This little book certainly contains much and we cordially commend it.

News Items

For Rent.—Morning hours (11-1) in splendidly appointed office and waiting room in the Monroe building. If interested, send name to Dr. X, c/o Medical Recorder, 804 Pullman building.

Hospitals to Reduce Nurses' Hours.—Steps are being taken in Philadelphia hospitals to reduce the hours of the nurses to conform to the bill before the legislature, calling for an eight-hour day.

Death of Mr. Carl Brucker.—Fritzsche Brothers announce with profound sorrow the death of Mr. Carl Brucker, who passed away on Sunday, March 23rd, in his 55th year, at his residence in Passaic, N. J.

Wanted.—Young medical student or doctor to correspond with us about a new way of money and friends making in the health and efficiency promoting line. Address Geo. A. Schmidt (IT) Co., 236-238 North avenue, Chicago. Established 1875.

Memorial to Indianapolis Physician.—The Woman's Medical Club of Chicago gave a professional tea as a memorial benefit to Dr. Helene Knabe, at the Hotel La Salle, March 29, at which Dr. Lillian Crockett-Lowder, Indianapolis, was the guest of honor.

Ask for Woman Physician on Board of Education.—The Chicago Woman's Club, at the suggestion of the Woman's City Club, has sent a resolution to the mayor asking the appointment of another woman on the board of education, and urging that a woman physician be appointed.

South Side Physicians' Club.—The South Side Physicians' Club has recently been organized with Dr. Wm. Cuthbertson as president and Dr. F. G. Dyas, secretary. The purpose of the club is purely social and monthly meetings are to be held for the promotion of good fellowship amongst physicians.

The Milwaukee Sanitarium.—Dr. Richard Dewey has secured the services of Dr. Herbert W. Powers as senior assistant physician. Dr. Dewey continues to reside at the sanitarium and in active personal charge of the medical service. Dr. Powers comes from seven years successful service at the Kenilworth Sanitarium.

Cooperative Physicians' Building.—The plan for a cooperative Physician's Building at the corner of Michigan boulevard and Washington street, to be built and financed by physicians, has been turned over to Mr. Jarvis Hunt, architect, who has agreed to build on the lines suggested by physicians and to assume all financial responsibility.

Public Health Bulletin No. 56 of the U. S. Public Health Service.—This bulletin gives a most interesting digest of laws and regulations in force in the United States relating to the possession, use, sale, and manufacture of poisons and habit forming drugs, by Martin I. Wilbert and Murray Galt Motter, prepared by direction of the Surgeon General.

Dr. Frank H. Blackmarr desires to announce his return to office and hospital practice of Electro-Therapeutics—X-ray Therapy, Radium

THE
CHICAGO MEDICAL
RECORDER

MAY, 1913.

Original Articles.

DISPOSAL OF SEWAGE.

By ARTHUR R. REYNOLDS, M. D.

During the past winter a sub-committee of the Committee on Health of the Chicago City Council, visited five eastern cities for the purpose of gaining information on sewage disposal and made a report to the mayor in February last. The report indicates that the committee formed an intelligent conception of the question considering the time at their command. They have recommended treatment of the concentrated sewage of industrial plants, especially that of the Union Stock Yards, before it is discharged into the river. They recommended screening the sewers to collect all floating matter that may have become unsightly. They also wisely recommended preventing vessels from discharging any sewage into the lake near shore and the prohibition of all dumping of dredgings in the lake. They then say:

"The committee believes that the method of disposal of sewage in Chicago is rather primitive, and that no attempt is made to separate the solids from the liquids except by dilution, or to purify any of the matter before depositing same into the drainage canal. In all of the five cities visited, some method of purification of the sewage has been adopted or is at least contemplated.

"We believe that the city should proceed at once to anticipate future needs by considering the advisability of installing a system of settling tanks and filtration beds, perhaps three distinct plants, one located each at suitable places on the north, south and west divisions of the city for the purpose of purifying its sewage before discharging same into the drainage canal."

This statement of the committee gives voice to a mischievous notion that has grown insidiously in some quarters in Chicago during the last ten years. The public has been led to believe that our whole drainage scheme is more or less wrong: That it has reached its limit of usefulness: That we should install some method of treating household sewage before it is discharged into the stream: That no household sewage should be discharged anywhere without first being treated, and finally that the particular kind of treatment that sewage needs is by the Imhoff tank method. This method is just now the vogue in academic circles and with sanitary engineers who may or may not be interested in promoting their own personal interests.

We do not argue that there is nowhere need of sewage treatment before it is liberated. Whatever the need for treatment may be where the only outlet for it is into small streams, into the still waters of lakes or into the ocean where it is only moved back and forth by the wind and the tides, it is a wholly different question when discharged into large streams like the Mississippi, Missouri, Illinois, Ohio or other rivers. In large streams there is opportunity for dilution; the swift moving stretches permit purification by oxidation and the still stretches permit of purification by sedimentation. It can be positively stated that the only method of actually purifying sewage is by open air and intermittent sand filtration. This method is very expensive and for a city of size requires an acreage so large as to make it prohibitive and at best very cold weather makes it inoperable. It will be recalled that the Cameron septic tank method came to notice about twenty years ago and for a time it was expected to cure all sewage ills. It had its run with university professors and others, but the professors and sanitary engineers have now taken up the Imhoff tank method. How soon it will be superseded we cannot yet tell. It is still too new to permit of positive conclusions. The advocates of the Imhoff tank do not claim that it will remove germ life from raw sewage and will only settle out about 25 per cent of the solids.

Normal house sewage has in it only about one part of solid matter to 1,500 parts, which amounts to about a teaspoonful to a gallon and a half and at the rate mentioned there would be removed about a teaspoonful to six gallons. It seems much more rational to permit this small quantity to settle out in the still places of a stream like the Illinois river in a natural way, and then if need be dispose of it on the banks by dredging, which is inexpensive when compared with the tank method.

Many people think that fecal matter is solid matter. Fecal matter is soluble and leaves only a slight residue. Even the paper that goes into sewage is soluble.

The solids found in Chicago sewage are largely made up of sand, silt and coal dust that is washed in from the street and is harmless. In settling, some putrescible matter is carried down with the sand, but the quantity is so small that it is not worth while to remove it by artificial means so long as the cost of doing so is out of all proportion to the good that is done and especially as the disease producing bacteria that may be in the sewage, are not removed.

The dilution method of treating sewage is the cheapest of all methods. Every other known method fails in its application somewhere and sometime and the most elaborate method rarely renders sewage fit to turn into any lake that is used for drinking water.

The treatment of sewage at its origin would naturally lead to efforts to reduce its volume and limit the cost and this would lead to a separate sewer system for storm water and possibly another system for the waste from kitchen sinks and from wash bowls and bath tubs and would even tend to discourage the use of water closets. Water closets in American houses and throughout the civilized world have become a sacred necessity and anything that would place an embargo upon them would not be lightly considered anywhere. In cities like Chicago whose surface is only a few feet above the water level, the sewers naturally have but a slight pitch and slow current. They need a large volume of water to keep them flushed out and clean.

The lakes of the country are the natural reservoirs of fresh and pure water and it is manifestly rational to endeavor to keep them pure. On the other hand, the streams of the country are the natural drains. The tiling of farms and the drainage of swamps has forever robbed the streams of their original character. No longer can the rivers of the country be considered sources of pure water supply for human consumption. The excreta of the whole human population if turned into the rivers is small when compared with the silt and mould from the hillside, the slime of the marshes, the drainage of farm yards that go to discolor and pollute them. In river cities where deep wells of pure water cannot be had, it is comparatively easy to purify the water of the stream when compared with the purification of lake water. It is possible in rivers to take the water out of the stream by gravity and let it flow to filter beds and from there let it flow on by gravity to supply the people. To filter lake water

requires that it be pumped to the shore and after filtration it must again be pumped to the pipes that supply the consumer.

The scheme of sewage disposal by dilution, adopted by Chicago twenty-five years ago, is the same as that practiced by every river town in the country. By the construction of the drainage channel, Chicago is now on the Illinois river and her sewage disposal in that respect differs from every other lake city in the country and from the large coast cities that drain into the ocean. No attack can be made on Chicago for disposing of her sewage by the dilution plan that will not apply to all river cities and towns provided she gives the sewage reasonable dilution.

The Chicago Drainage Channel in the rock cut will carry a flow of 840,000 cubic feet per minute and that will furnish reasonable dilution for a population of 4,200,000 people and it will be many years before that population is reached in the area for which the drainage was originally planned. We claim the legal right now to take from Lake Michigan so much of the 840,000 cubic feet per minute as may be needed to furnish a dilution of 20,000 cubic feet per minute for every 100,000 of population draining into the channel.

Chicago's plan of sewage disposal is right, and when the provisions of the state law of 1889 creating the sanitary act are fully carried out, the drainage will be ample for the next sixty or seventy years. We have spent seventy-five million dollars in developing our system of drainage in conjunction with a deep water way and the whole country has looked on admiringly from the beginning, and uncomplainingly. The plan is so in harmony with the practice in sewage disposal of the rest of the country that the federal government will not seriously interfere when all the facts are fully and properly presented.

SCHOOL HYGIENE OR THE HEALTH AND PROGRESS OF THE SCHOOL CHILD.*

BY FRANK ALLPORT, M. D., OF CHICAGO, ILL.

I wish to express my thanks to the Tennessee State Medical Society for honoring me with a request to come to Nashville and address this body. It is an honor that I deeply appreciate, and will never forget.

I was requested to read a paper on some eye or ear subject, but I felt that this society would be more interested in some general topic, and therefore requested the privilege of presenting to you a subject that is very near my heart, viz., "School Hygiene, or the Health and Progress of the School Child."

This is a topic of vast importance, and one which should enlist the interest and sympathy of every medical man in the state of Tennessee. You will, of course, understand that in a brief paper, such as I am presenting today, it is quite impossible to do more than to briefly sketch this subject to you, and to merely touch upon its almost endless phases, stopping to dwell here and there for a few moments upon some of its most salient features.

The question in a nut shell is this, are we going to give our children a "square deal" in our public schools? Are we going to invite or compel them to attend school and then fail to deliver to them what the citizens of this country pay for and have a right to expect? Are we going to diminish crime and poverty by educating the children under the best possible auspices? Are we going to materially lessen epidemics, sickness and bodily defects by the universal standardization and adoption of a proper search for diseases and defects in our public schools? Are we going to strengthen our nation intellectually, physically and morally by improving and increasing our educational facilities and possibilities through the avenue of placing the children of our country in a better physical condition? These are questions for us as citizens and doctors to decide, and these questions embody the text upon which I wish to talk to you today.

Let us start with the school houses of the United States, and endeavor to frankly and truthfully view the situation as it really is. We have some beautiful school buildings in this country, but we also have some buildings where, as Governor Ferris of Michigan recently said in his inaugural address, it would be unfit and unsanitary to

*Read before the Tennessee State Medical Society at Nashville, April 8th, 1913.

stable horses and cows. We have some school houses without windows, where all the light and ventilation comes from the door. We have some school buildings that apparently do not shock the sensibilities of the health and educational authorities, nor those of parents and other citizens, where children are being blinded (or nearly so) by insufficient and improper illumination, bad text books, and from contagion. In other schools adenoids, enlarged tonsils, deafness, discharging ears and death are being encouraged by bad air and unsanitary conditions. In other schools tuberculosis, pneumonia, measles and the other contagious diseases of childhood, originate and prosper through unhealthy surroundings. Some schools are so cold and draughty that children are constantly chilled, while others are so hot and poorly ventilated that mental activity is almost impossible.

The best heating and ventilating systems should be in all schools, and the windows should be thrown open from time to time to thoroughly purify the atmosphere. The temperature of school rooms should be systematically observed, and it should be remembered that mental work can be best accomplished and good health secured and retained at a temperature of about 68 degrees.

Some schools encourage crooked backs by bad desks and chairs, while others spread contagion by unsanitary water closets, roller towels and the common drinking cup. In many schools children are penned in like cattle with totally insufficient means of escape, and could easily be burned to death as fire attacks the tinder box, called by courtesy a school house. In some schools the physical well-being of pupils seem to have been deplorably neglected, and but little (if any) attention is paid to the indoor and outdoor exercising, gymnasiums, playgrounds, bathing facilities, proper food, etc., etc. And so I might go on almost indefinitely disclosing the truthful conditions of many school houses; but time presses and I will only add that bad school buildings should be torn down, and new ones built, and that school buildings should be erected in healthy, quiet locations, with ample surrounding spaces for air, light and play, and that they should be built by architects who know this special line of work, and that they should contain every modern and well-tried device that encourages health and easy intellectual and useful progress. These views should be especially emphasized, as in thirty-six of our forty-eight states school attendance is compulsory.

I wish to protest against the prevalent custom of almost invariably building our best building for high schools, and leaving the

youngest children to occupy the poorest buildings. The best buildings should be given to the very young, for it is during the earliest period of school life that children's bodies and characters are most susceptible to surrounding influences. I wish that all children might go to school in proper buildings, but if a choice must be made, by all means give the best to the youngest children.

It is indeed surprising that, notwithstanding the fact that the proper building and equipping of school houses is a public affair of vital importance to individuals and to the nation, Ohio is the only state that has seen fit to pass laws calculated to regulate such matters.

The child is the greatest asset of the state. We are educating and rearing a nation that shall be useful in times of peace, and in times of war. Our men and women should be big and strong physically, intellectually and morally. It rests with each mature generation to mould and shape the coming generation. The most important place for this essential work is in the great melting pot of the nation—the public school. Here the children come together and mingle, here they secure, at least, temporary relief from homes of squalor, destitution and crime. Here we have the opportunity to shape, educate and direct their minds, bodies and souls. Let us not neglect the golden opportunities, these solemn privileges, but let us make of our public schools the means whereby we can produce the highest types of manhood and womanhood. I herewith desire to endorse the attitude taken by many of our boards of education, and recently emphasized by Mayor Harrison of Chicago, that our schools should be the social centers of their neighborhoods, for those who desire to so utilize them. Meetings, social gatherings, entertainments, etc., should be encouraged to go to the public schools, and the people of the various neighborhoods should be made to understand that these buildings belong to them, and can be utilized for all proper and legitimate functions.

I have gathered together some figures and statistics on the subject of our public schools, that I hope may serve to impress upon you the importance of our schools, and the intimate relationship existing between them and the health and welfare of our nation.

In the first place there are in this country 20,000,000 school children, or 20% of the entire population. Seventy-five per cent of these children are suffering from some partially, or completely remediable defect, which is more or less interfering with their physical, mental and moral advancement.

500,000 have organic heart disease,
1,000,000 have spinal curvature, etc.,
1,000,000 have tuberculosis,
1,000,000 have defective hearing,
5,000,000 have defective vision,
5,000,000 have malnutrition,
6,000,000 have operable tonsils and adenoids,
10,000,000 have defective teeth.

Seventy per cent of the deaths in the United States are due to contagious and epidemic diseases, that could in most instances be controlled and suppressed by proper medical school inspection.

There are 260,000 schools in this country valued at \$850,000,000; they cost about \$500,000,000 a year to maintain. No other investment pays so well. More money spent for schools means better schools, and teachers and scholars, and this means better citizens, less crime and more money.

Forty-four million dollars are invested in the public schools of New Jersey alone, costing \$13,000,000 a year to run. There are 500,000 pupils in the state, with a possible attendance of 71,000,000 days, and yet owing to absence only 9,000,000 of these days were utilized. Seventy-five per cent of these absences was due to sickness, representing a loss to the state of about \$3,750,000. Unquestionably, proper medical school inspection would have largely obliterated such an intellectual, moral and financial loss to the state. In searching for a remedy for this and other ills connected with the health and learning capacity of children, Dr. Ayers points to the confusion existing in this country. Some states and cities have laws that are probably not carried out, while other states and cities have none. Scarcely any two laws concerning medical school inspection are the same. There should be a universal adoption and standardization of such matters in every state in the union. Dr. Ayers has a bill before his state legislature, and hopes to create the office of State Supervisor of Medical Inspection of Schools. The entire cost of this organization will not exceed \$15,000 per annum. It will be this officer's duty to create and enforce uniform rules concerning the health and well-being of the children of the state, including the plan of medical school inspection. He will instruct and encourage all those who are assisting in carrying out this work throughout the state. This plan should be adopted in every state in the union, and the benefits that would thereby be produced would be simply incredible.

About one school house burns down for every school day in the year. What an opportunity for better buildings!

We have about 500,000 teachers, seventy-eight per cent of whom are women. They are practically all underpaid, considering the high character of the work required, and considering that they are rearing the coming generation. Their pay averages \$40.00 per month, or less than the average day laborer. In some states teachers earn less than \$150.00 a year. They pay the highest average salaries in California (\$918.00), and the lowest in North Carolina (\$200.00).

There are about 300,000 blind people in the United States, costing about \$15,000,000 to support, and most of this blindness could have been prevented by proper medical school inspection and subsequent medical care. About seventy-five per cent of American children have some eye, ear, nose or throat disease or defect which is seriously interfering with their educational progress. Most of these children can be relieved by proper treatment. It costs in England about £23 per annum to educate a deaf child, while a normal child can be educated for £14 per annum. In New York City with a school population of 650,000, thirty per cent of the children are two years behind their grades, and ninety per cent of this is due to abnormal eyes, ears, noses and throats. Dr. Cravin found in one New York school 150 defectives who were backward in their studies and incorrigible in their characters. One hundred and thirty-seven had bad tonsils and adenoids and 13 had defective vision. After these conditions were removed all of their characters and school standing rapidly improved. Forty thousand Minnesota children are retarded one year in their studies by adenoids. This costs the state \$1,000,000, which could all be saved by 40,000 simple operations.

Ninety per cent of school children have decayed teeth and deformed mouths. Decayed teeth produce pain, diseased mouths, germ saturated food, poor mastication and digestion, intestinal toxemia and impaired nourishment and bodily resistance. Dr. Osler declares that bad teeth are a greater misfortune to the world than alcohol, and I believe this statement can be substantiated. In Vienna they have formed a society for the care of children's teeth, with buildings in all parts of the city. They preach the gospel of good teeth and clean mouths to children and their parents. The Forsythe Brothers have erected a \$1,500,000 building in Boston for the same purpose. Free dental infirmaries are at work all over this country; but I would recommend that dentists who work in such institutions receive a reason-

able remuneration for their arduous labors, as free service is too much to ask of dentists, and it has been shown in many places that the work languishes where no compensation is forthcoming. Children should not only have their diseased mouths regenerated, but they should be taught how to take care of their teeth, by personal demonstrations and leaflets distributed to them and to their parents, as is done in Denver and other places. One of the large packing houses of Chicago, realizing that good teeth are an important factor in the maintenance of physical equilibrium, and that bad teeth induce poor health, pain, absence from business, the use of liquor, etc., has lately established at the yards a dental infirmary, where their employes may be cared for at practically no expense. The company pays the bills, and consider it is saving money by so doing.

Dental infirmaries may be separate institutions, or they may be connected with other free dispensaries accessible to school children, either connected directly with the schools, or situated so as to accommodate an extensive neighborhood and a number of schools.

I have for years been interested in the examination of school children's eyes, ears, noses and throats by school teachers, and for this purpose have devised a series of nine questions, the answers to which will disclose the existence of at least ninety per cent of serious diseases, or defects of these organs. Teachers are perfectly competent to make these tests and a child can be readily examined in five minutes. If a defect is found a "Card of Warning" is sent to the parent, urging action in the matter. A vast majority of children (over seventy-five per cent) suffer from such defects, that are more or less preventing satisfactory school progress. A child whose eyes prevent comfortable study, or whose deaf ears render easy communication with those around him impossible becomes retarded in school, discouraged and careless, truant and idle, and ultimately very likely leaves school, forms habits of idleness and vice, and not infrequently joins the criminal classes and becomes an expense and a charge to the state, in reformatories or prisons. To permit such children to follow such a program is neither economical, philanthropical nor wise. Such defects should be systematically discovered and relieved (especially as the expense is almost nothing), after which the dull student may become bright and the hardship of study transformed into a pleasure. Even in cities having medical school inspection, I believe it much better to have these eye, ear, nose and throat tests made by either the teachers or the school nurses. Any intelligent teacher can

make them. The doctor to whom the child goes will diagnose and treat the disease or defect. A day in the early fall should be annually devoted to these tests, and by so doing, and by a subdivision of the work so that each teacher makes the tests in her own room, an entire city can easily be examined in one day. Or, if this idea be deemed inadvisable, a few children can be kept after school during a certain week in each early fall, and at the expiration of the week all the children will have been examined.

If in the State of Tennessee you are not fully prepared to go into the matter of general medical school inspection, you can at least have these simple, cheap and efficient tests made, for by so doing you will accomplish a vast amount of good at practically no expense and no trouble. No teacher should feel that these tests are an additional labor, for they are but little trouble, and in the end will repay the teacher a thousand fold in reducing her work, by changing stupid, exasperating children into bright and agreeable scholars, after their eye, ear, nose or throat defects have been relieved.

Dr. Hoag of California, now working with the Minnesota State Board of Health, at the suggestion of that best of secretaries, Dr. H. M. Bracken, has devised a series of questions which enlarges upon my method. I proposed years ago that an annual systematic examination of school children's eyes, ears, noses and throats should be made by teachers. Dr. Hoag goes further, for he proposes by similar simple questions and observations made by the teachers, to include practically the entire body. His questions are subdivided off into groups, such as "Eye," "Ear," "Skin," "Nervous System," "Teeth," "General Condition," etc., etc. The teacher fills out the answer to all the questions, after which a very good idea of the child's health and condition can be formed. If the child is defective or diseased, the parent is then urged to seek the advice of a reputable physician. Dr. Hoag has his headquarters at the Capitol building in St. Paul, and holds himself in readiness to go wherever called to make health observations and to give instructions to school authorities, how they can best accomplish medical school inspection in the various towns. He is kept constantly busy, and is doing the best and most systematic work I know of in this country. He allows each town to select one of three methods of doing the work. They are as follows:

1. Organization with a medical officer and nurse, or nurses.
2. Organization with school nurse only.
3. Organization by the employment of a simple non-medical

health survey, on the part of the teacher only, such as I have just briefly described.

I sincerely wish that all other states would follow the example of Minnesota.

Professor Heck of the University of Virginia is doing field work similar to Dr. Hoag's.

The question of defectives and schools for defectives is one of the most interesting phases of the subject under discussion. About one and one-half per cent of the school population is defective mentally. Many children appear to be mentally defective, who become normal in appearance, when certain physical defects, such as adenoids, deafness, poor eyes, etc., are relieved: but about one and one-half of the school population remain mentally defective. What are we to do with them?

There are in all schools four classes of pupils, viz.:

1. Those who keep up with their grades.
2. Those who do not keep up with their grades, but who eventually do, after certain physical diseases and defects are corrected.
3. Those who do not keep up with their grades on account of actual stupidity, laziness, viciousness, etc.
4. Those who do not keep up with their grades on account of mental defectiveness.

Children who do not keep up with their grades are called "repeaters." They stay in one grade or room term after term and hardly advance any in their studies. There are about 3,000,000 such children in the United States, and it costs about \$100,000,000 to educate, or try to educate them. A very large majority of these 3,000,000 repeating children can be kept from repeating by relieving them of their physical diseases or defects. By taking advantage of this great economical and humanitarian measure, the repeaters would be practically reduced to those who do not progress, owing to real stupidity, laziness, etc., and to those who are actually defective mentally. Concerning the first, we shall have to get along as best we may, but concerning the mentally defective, I am sure they should be taken out of the general schools, and placed in schools especially prepared for their benefit. All repeating children are a detriment to everybody in the school room, and they should either be cured of repeating or else placed in separate schools. They frequently hold back an entire class, for the teacher either has to neglect the balance

of the class for their benefit, or the progressive scholars are taught at the expense of the laggard. Mentally defective children should therefore attend small schools, where under the influence of special teachers, environments and methods, they may be educated according to their mental qualifications. Epileptics may, if necessary, be taught in these same schools.

It is getting to be pretty well understood that badly crippled and deformed children should receive special instruction in separate schools provided by the Boards of Education. Children only slightly deformed may be educated in the ordinary schools, but there are many children extraordinarily deformed, such as those who are armless, or legless, etc., etc., who need special education, both from humanitarian motives, and to keep them from becoming charges upon the Commonwealth. They should be gratuitously transported both to and from school.

Blind and deaf children should have access to public schools of special character. Many such children are educated in state institutions; and where their homes and parents are of a poor quality, such places are best for them. But where children have good homes and parents, they should be educated in their own cities, where they can receive the benefits of home surroundings.

Open air schools, especially for the benefit of sickly and tuberculous children, such as are in existence in Providence, Mont Clair, Chicago, New York, Philadelphia, etc., are doing a grand work, and are becoming more popular every year. There are over 200 of such schools in the United States at the present time. The school is usually a commodious tent, or it may be on the roof of a school building, or in rooms well supplied with many open windows. Children are frequently gratuitously transported to and from school, and are given free, or nearly free, hot and nourishing food from time to time. They are well wrapped up in warm clothing and are properly exercised at certain intervals, and are encouraged to take naps in the afternoon. These schools are doing an enormous amount of good. To reduce the subject of tuberculosis to the sordid level of figures and money, I will remind you that 7,000 children die annually in this country each year of tuberculosis. The average age of these children who die is $12\frac{1}{2}$ years, and inasmuch as the average age of children when they begin school is 6 years, these children have been receiving free education by the state for over six years before they die. It costs \$30.00 a year for the public school education of a child. These

children have, therefore, each cost the state for their education over \$180.00. When we consider that 7,000 children die each year of this disease in this country, it means that the nation spends over \$1,000,000 each year of useless money for their education, it is evidently cheaper by far to keep children well than it is to allow them to remain sick or defective.

The question of vocational education in our public schools for children is one of great importance, and it is to be hoped that it will not be long before children all may be trained for some useful vocation in life in the public schools.

The subject of free, or almost free, lunches of a good and nourishing character is believed by many to be an economic measure, as children who are well nourished can make better school progress than those who are not.

Free, or almost free glasses, is considered in about the same light, as children who need glasses but cannot afford them are much handicapped in school. This need not be a great expense, as in Cleveland, where this work is being done quite thoroughly, they only give away a little over 300 pairs of glasses in a year, which when purchased at practically wholesale rates amounts to but very little. Twelve of our states distribute free text books, and in Massachusetts, immediately after this law was in execution, the school attendance increased ten per cent. In Newark, N. J., they have recently established an "Infants' Consultation Station," which is located in one of the school buildings. It is open from 11 to 12 o'clock, and is in charge of a doctor and a nurse. Here parents bring their infants, and are instructed how to bathe, dress, feed and care for their babies. Healthier babies will be produced by this process, who, when they arrive at school age, will be much better equipped to receive and profit by a public school education.

Some people imagine that while trachoma exists in India, Egypt, etc., there is little or none of it in this country. Unfortunately, however, trachoma exists in lesser or greater degrees all over the country. Dr. John Green, Jr., found 223 cases in 21,930 school children in St. Louis. Dr. J. A. Stucky's wonderful journeys into the mountains of Kentucky disclosed a most pitiable trachomatous condition. Trachoma is, of course, contagious and may be communicated by handkerchiefs, towels, wash rags, etc., and is fostered and encouraged by bad air, filth, malnutrition, crowded rooms, etc. The necessity is, therefore, apparent for clean, hygienic and proper school houses, decent

homes, sufficient and proper food, etc. London has established "trachoma schools," where only trachomatous children are taught, where their eyes are not over-strained, where they are suitably fed, and where they receive proper medical attention and nursing.

Camping schools, where children are kept out doors all the time, and taught manliness, botany, woodcraft, boating, etc., etc., and where a healthy moral tone is maintained, are very useful, and are becoming more and more popular.

City summer schools are maintained now in most all large cities. In these schools the air is cooled and the children are much more comfortable than on the crowded streets, or in the hot and badly ventilated and cleaned tenement blocks and houses. In these schools the studies are easy, and consist chiefly in lessons on cleanliness, hygiene, morals, good citizenship, travel, light literature, etc., the idea being chiefly to keep the children from the streets, bad associations, bad health, dirt, etc., and to retain the beneficial influences and discipline of school life. Cleanliness, health laws, and good hygiene should be among the most important things taught in our public schools, not only during the summer vacation schools but all the year around. These should become a habit with the children. Cleanliness begets self-respect, and self-respect begets most of the good things of life. Clean habits inspire people not to expectorate under unwise conditions, to keep water-closets clean, to dislike dirty towels, and clothes, and bodies, etc. Not only should hygiene be taught in our public schools, but normal schools should teach this subject to those people who expect to become teachers, so that they may thoroughly understand its practical laws when they come into contact with public school children. Teachers themselves should be compelled to present suitable medical certificates of health, before being allowed to follow the teaching profession, and a renewal of such certificates should be required from time to time, as occasion requires. Ailing individuals are not qualified to be teachers of our children.

In small towns, one medical inspector will be sufficient, but in large cities many inspectors will be required, who will be under the supervision of the chief inspector, to whom all reports shall be made. Each inspector should give certain definite hours each day to his district, but the chief inspector should give all his time to the work. Each child should be thoroughly examined once or twice each year, and from time to time as occasion requires. Diseased or defective children should be sent home, and the parents urged to consult a physician of their own choosing. These notifications should be fol-

lowed up by the inspector, teacher, or nurse, and every effort made to see that diseased or defective children are placed in proper medical hands. I am firmly of the opinion that sex hygiene should be taught in our schools. Male physicians should teach the boys and female physicians the girls. This knowledge is usually acquired in an undesirable manner, and it is best that children should be taught the truth, gently, scientifically and tactfully, after the manner described by Dr. Philip Zenner of Cincinnati.

I am convinced that great care should be taken that children are not over-crowded with school work at the age of puberty.

I also believe that the subject of medical school inspection should be thoroughly taught in all our medical schools.

The medical inspector's chief assistant should be the school nurse. She has only been in existence a few years, but has amply proven her indispensability. Her salary is always entirely inadequate. Everybody loves and honors her and I have never heard a complaint of her work. In Boston in one year the school nurses visited about 23,000 homes of school children. They took 2,500 children to dentists, 9,000 to hospitals and 7,500 to family physicians. They made 36,000 surgical dressings, looked after 3,400 cases of defective vision and 350 cases of deafness. Each nurse cares for a certain district, and its children, and parents and homes. She assists the inspector each day in his work, to whom she reports all suspicious cases. She cares for emergency cases, and treats many cases of itch, eczema, lice, etc. She takes children to dispensaries, doctors and hospitals. She cares for them at home under the doctor's orders, and makes it possible for the doctor to get good results. Medical inspection without school nurses would lose much of its usefulness. In Philadelphia in 1910 it was found that without school nurses, eighty per cent of diseased and defective children were uncared for, whereas with school nurses only twenty per cent were uncared for. The school nurse also greatly benefits the home life of her district. She teaches them decency, sobriety, cleanliness, cooking, bathing, hygiene, infant care and feeding, plumbing and drainage, etc. She is an angel of mercy in the household and renders the world better for her presence, and those communities who have once experienced the benefits of her ministrations are never willing to give her up. In many small communities, in conjunction with her other work she takes the place of the medical inspector, and does it well. She inspects the children systematically from time to time and observes them daily. She recommends medical care whenever it seems advisable, but does not treat

cases herself, and must never recommend any doctor in particular; this must always be left to the family.

There is a difference of opinion as to whether medical school inspection should be accomplished under the authority of the Board of Health or the Board of Education. Such diverging views unfortunately frequently result in nothing being done at all. For instance, in Chicago, I have been endeavoring for years to secure an annual and systematic examination of the scholars' eyes, ears, noses and throats, but this beneficent movement has been prevented because the Superintendent of Schools and the Commissioner of Health could not get together as to whose shoulders the burden should fall upon. The former feels that the Board of Health should pay the bills and do the work, and declares it would be unjust to ask the teachers to make the examinations, ignoring the fact which is attested by thousands of doctors, teachers, etc., who are familiar with the work, that this little bit of time and trouble subsequently repays them many times over by revolutionizing the characters and teachability of many of their pupils. I have too much respect for the intelligence of our Superintendent of Schools to believe that this is the real reason for not giving the order that these examinations shall be made by the teachers. The Commissioner of Health on the other hand claims that tests of this kind should be made under the auspices of the Board of Education, and that his department has not the money to have either the medical inspectors or school nurses make the tests. And thus between this conflict of opinion the poor children, and one of the greatest cities in the world refuses to dispense justice to its school children. It is really too bad, the teachers could easily and quickly make the tests if properly instructed; the expense would be almost nothing and the benefit to the children would be almost incalculable. It is quite well recognized by our leading authorities that the Boards of Health should care for all diseases of school children that menace the public health, such as measles, diphtheria and other contagious diseases, while those defects of the children, such as eye, ear, nose and throat defects should be looked after by the Board of Education.

And now, as I bring this paper to a close, with much to be said that time forbids, I wish to say that one great reason for lack of progress along the lines indicated in my address, is politics—selfish, narrow-minded politics. Starting with bad appointments to health and educational bodies, and ending in an entire misconception of duties, the building up of political machines, and the yielding to

graft, petty and otherwise, the unfortunate children of our country are continually suffering from conditions that seem incurable. I know of boards of education in which can be found saloon-keepers, gamblers, quack doctors, ignoramuses, corrupt politicians, etc. How much of progress can be expected of a board in whose ranks can be found men of this description? They are placed there for political reasons only, to pay a political debt perhaps, or to cater to some political influence. How much uplift and advancement can be expected of boards influenced by such members? Such men do not believe in high ideals, they believe in graft and politics, they call high ideals "fads," and while saturated themselves with cupidity and avarice, believe that all men are built upon similar lines and are as incapable of pure motives and benevolent inspirations as they are themselves. Such progress as I advocate is, therefore, hard to make, because those having such movements in charge are compelled too frequently to plead their cause before an unsympathetic tribunal; incapable, or unwilling to believe that there are men and women in this world willing and eager to work for the good of the cause and without hope of reward save in the consciousness of having performed their duty in that sphere of life in which it has pleased God to call them. Do not forget that if no higher motive inspires those having such matters in charge, it is financially cheaper to educate children properly in suitable buildings, and to produce and maintain a high health standard, than it is to educate them under reversed conditions, and to pay the money out supporting criminal courts, reformatories, jails, hospitals, institutions for the deaf, blind, dumb, crippled mental defectives, paupers, etc., even if we have no ambition to produce a strong race, as one generation succeeds the other. It must not be forgotten that a strong virile intellectual people is one of the greatest assets a nation can possess, not only in times of war, but also in time of peace, and each individual community should be willing to do its individual share in the general uplifting and improving, and strengthening of the Fatherland as a whole.

My message, as I close, to the State of Tennessee is, to get busy and take good care of its children. Build up a strong state, by building up strong children. Start systematic State Medical School Inspection, with plenty of good school nurses. It is the best investment you can make. Do it—and do it now!

7 WEST MADISON ST.

RIGHT-OF-WAY VS. HOSPITAL TREATMENT OF SURGICAL SHOCK.*

By DR. O. F. SCOTT, ARGO, ILL.

The purpose of this article is not to propound any new means of combating surgical shock on the right-of-way, under most unfavorable circumstances, but to elucidate, as clearly as possible, what can be done to sustain life while an ambulance or train is being procured, and during the patients' conveyance to the nearest available hospital.

The first and primarily important fact in the treatment is the ability to accurately judge, in terms of surgical shock, the exact condition of a patient immediately he is under observation. It is unnecessary to enter here into a prolonged discussion of degree of surgical shock. There is no absolutely fixed lines to be drawn with accompanying symptomatology that can portray the various phases of this condition. It can only be automatically classed, in each case, in the mind of the individual surgeon, necessarily of considerable experience, and treated accordingly, in order to obtain the one desired result i. e., retention of life. In general, however, the severity of the shock depends upon the extent and degree of the crushing injury or injuries present rather than the initial hemorrhage. It is my candid opinion that as many patients die from hypodermic overstimulation, as die from lack of enough mechanical stimulation to tide them over the crisis.

After receiving the emergency call the first thing in order on the way to the patient, or immediately after arriving on the scene, granting that it is a case of severe injury, is to dispatch some one to order a train or ambulance.

The actual treatment on the right-of-way then begins and consists in synthetic mechanical efforts to combat the pathological mechanical changes resulting from the injury, hemorrhage, or both.

Actual Hemorrhage.—The first and most important thing to do is to ascertain whether there is any external intra-muscular oozing, or actual hemorrhage. If so, constrictors, if not already applied, must be used; and, if already applied, must be inspected in order to be sure that they are tightly compressed and so placed that they will not slip during manipulation and subsequent removal of the patient. It is also always safer, in addition, to snap 6-inch curved hemostats

*Read before the annual meeting of the Chicago & Alton R. R. Co.'s Surgeons at Springfield, Ill., on February the 26th, 1913.

on all main arteries of an extremity if their several ends are in view regardless of whether or not they are bleeding.

(The simplest constrictors are pieces of elastic gas tubing about two feet in length; and they should always be present in the emergency grip.)

A few seconds have sufficed to eliminate all danger of further hemorrhage.

External Heat.—The next thing is the application of external heat. This is most necessary as the injury, hemorrhage, or both, act mechanically to destroy or temporarily suspend the normal equilibrium between the heat intake and the heat output so that the body temperature is rapidly lowered.

The solving of this problem of applying external heat is not as simple sometimes as it would seem. Perhaps there are no blankets available; then the next best thing may be large quantities of waste spread over the patient; or even the coats from the surgeon or bystanders. Lanterns must be used to instil warmth beneath the covering; if lanterns are not handy I have many times used switch lights in an emergency, posting men up and down the track to flag any trains until the lamps could be replaced. When we have counterbalanced the heat output by external applied heat we have restored, in a measure a new equilibrium which endeavors to raise the body temperature.

Vaso-Constriction.—As it is a well-known fact in shock that there is a vaso-dilatation of the greater splanchnic vessels the patient's head should be lowered and his body raised to an angle of 45 degrees, either by placing him on a car door, a board, or by holding the hips elevated with the weight taken off his neck by some one supporting him under the shoulders.

Pressure is then made on the abdominal aorta with the closed fist through the median line of the abdomen. This temporary closure of the abdominal aorta with the combined change in position raises the blood pressure by limiting the work on the heart and directly stimulating the greater splanchnic vessels causing a vaso-constriction so that the blood from this area is forced into the circulation. This return to something near normal condition has its effects in strengthening the cardiac and heat centers in the cerebellum by which the body temperature is raised and recovery from the shock begins.

Hypodermic Stimulation.—Hypodermic stimulation comes next, in my opinion, subsequent to the above procedures. Strychnine and atropin are used in amounts in the discretion of the surgeon. (A

bottle of sterile water with a hollow glass stopper should be carried in the grip, for many times there is no water available and nothing of proper size in which to mix a hypodermic solution; the hollow glass stopper serves admirably and no time is lost.)

The next most important step is the administration of 15 to 60 minims of adrenalin (ordinary commercial strength) in repeated doses to produce vaso-constriction and neutralize the vaso-dilatation present in the splanchnic area.

Whisky per mouth in small amounts is permissible but it is far better to first heat it over the flame of a lantern. The less, however, that can be used, the better, on account of the likelihood of nausea and emesis under the anaesthetic soon to be given.

As soon as you have done these things it is necessary to place on the patient a tight abdominal binder made out of a towel, shirt, or any kind of cloth, with a rolled-up towel, or even a piece of wood wrapped in cloth or cotton under the binder to serve the purpose of obstructing the abdominal aorta during the removal of the patient to hospital.

By this time the ambulance or train has arrived. It is necessary and vital, under such circumstances, to accompany your patient to the hospital keeping him under constant observation. Meantime you have had the hospital notified to prepare a shock bed, and, if the patient is coming in a train, to have an ambulance meet the train at a given point.

Hospital Treatment of Surgical Shock.—Upon arriving at the hospital the patient, if in surgical shock, is placed in the shock bed, which has been prepared pending his arrival. This fulfills the external heat necessity without further worry. The next thing is to examine the injuries to make sure that no constrictor has slipped during the trip. I make it a fixed rule in all cases of surgical shock of any severity, whether due to traumatism, hemorrhage, or both, to give immediately an intravenous transfusion of normal salt solution, with adrenalin added; the amounts depending upon the condition of the patient.

I find the results obtained from such a transfusion are far superior to a hypodermoclysis, an enteroclysis or both, much easier to administer; causes absolutely no shock or pain; the beneficial effects are instantaneous. The results as compared to a transfusion of human blood are also superior, in my opinion. In the first place the normal salt solution is given at a constant desired temperature. This not only replaces the volume of the blood lost from actual hemorrhage,

or vaso-dilatation of the greater splanchnic vessels; but also affords the most efficient method of applying direct internal heat. In a blood transfusion the temperature is very low because ordinarily the blood passes over so slowly that it cools considerably below body temperature.

In the second place, where time is such an important factor, we can utilize the normal salt intravenous transfusion immediately. In order to give a transfusion of human blood it is first necessary to obtain a donor. This is seldom easy to accomplish and even if it is finally accomplished the time consumed may have been the critical period during which the patient has either collapsed so deeply that resuscitation is impossible, or has died. The technic of the human blood intravenous transfusion is simple. The so-called "direct method" of using a syringe as an intermediate receptacle and injecting the drawn blood into the recipient's artery or vein, is simpler.

The transitory argument of the normal salt intravenous transfusions, in my experience, has proven that it is more than offset when we consider the many difficulties encountered in endeavoring to obtain a donor to furnish blood; the physiological changes likely to occur from the use of an unknown, untested blood; the danger of hematogenous specific infection.

Within two to three hours after the patient has arrived at the hospital under the above treatment, if he does not succumb despite all efforts, he is ready for the operating room.

THE TREATMENT OF TUBERCULOUS LESIONS WITH VACCINES AND TUBERCULIN IN SMALL DOSES.

By GEORGE R. POGUE, M. D., GREELEY, COLORADO.

Probably the most serious obstacle to the more general employment of tuberculin in the treatment of tuberculosis has been the common idea that heroic doses are necessary in order to produce therapeutic results—doses fraught with the imminent risk of aiding the disease rather than the patient. Tuberculin has been used as though it were an antitoxin which directly combats the infection, instead of being in fact a passively immunizing agent which arouses the organism to do its own fighting by stimulating the production of antibodies. Even today a large contingent of tuberculin users welcome the occurrence of constitutional reactions as evidence that the tuberculin is doing its work, and regards their absence as a signal to push the dosage. Wright's epoch-making work, by which the immunizing mechanism of the body was explained, demonstrates the fallacy of these views, shows that the ill effects so widely noted were a part of the negative phase, and gave us the key for avoiding the latter by carefully watching the opsonic index. He has placed into our hands the means of using tuberculin in a scientific and purposeful manner, in such amounts and at such intervals as will most advantageously conduce to immunization, and assist in the encapsulation of the bacilli in the tubercles. Wright has also shown the importance of combating the other bacteria usually present by autogenous vaccines, since tuberculin cannot cope with an associated infection which is often as serious a factor as the tuberculosis itself. These facts are more vital than the question as to which tuberculin is preferable, since the essential principle is probably alike in all of these. However, during the last few years statements have been made from various sources (1), and have recently been confirmed by the work of White and Avery (2), that tuberculin contains, besides the sensitizing principle, a mass of intoxicating substances which the old methods do not remove. It is charged further, that these impurities are responsible for sharp setbacks to the patient, and interfere with the therapeutic principle, and that this is not the cause with tuberculin which has been made by Koch's methods but subsequently extracted for the removal of deuteroalbumoses. Michailowskaja (3) has used this tuberculin, tuberculinum purum under control of the opsonic index in the three stages of tuberculosis, and found that concurrent with the rise in the opsonins there was a favorable effect on the general condition and on the catarrhal symptoms. The clinical findings of Lyon (4), Mudgett (5), Coon (6), agree with these conclusions.

I have therefore of late given tuberculinum purum in this manner, using amounts just sufficient to raise the opsonic index. The results have been again demonstrated that high doses are neither desirable nor necessary, for the effects have been entirely favorable especially in surgical forms of the diseases, as will be seen from the following histories:

Case I. Male, age 28, weight 123 lbs. Gave history of tuberculosis of the hip joint of several years' standing and had several drainage operations. When I saw him he had three discharging sinuses. Culture showed staphylococcus albus as an associated infection. A vaccine was made from the infection and used in conjunction with tuberculinum purum. In 30 days the discharge had ceased and there was evidence of healing. At the end of three months, he had gained 17 lbs. and was able to walk without the aid of crutches. Six months after beginning treatment he had apparently regained normal health and weighed 152 lbs. He has earned his own living since and has shown no signs of his former trouble.

Case II. Male, age 38, weight 145, previous weight 168 lbs. History of hip joint tuberculosis, similar to preceding. Was unable to use his leg at all. Had a large abscess in the region of the hip joint which was evacuated by a local surgeon. The pus contained no demonstrable tubercle bacilli, but an enormous number of staphylococci. The same line of treatment was followed as in Case I, with similar results.

Case III. Female, age 35, weight 109 lbs. Tuberculous glands of neck and axilla, recurring after operation for removal. Under tuberculinum purum she rapidly improved, the glands gradually becoming smaller. At the end of three months her general health was so much better that she was able to do her own housework. While the glands are still somewhat larger than normal, they give her no trouble.

Cases IV. and V. Were both of the pulmonary type, apparently in the first stage. No tubercle bacilli in the sputum, nutrition good, no rise of temperature above 37.3 C. for several weeks before beginning treatment with the tuberculinum purum. They had both been in Colorado for over a year, and as they put it, they had gotten so far along and had come to a stand-still. Under tuberculinum purum they both put on weight and improved in general appearance and well-being.

Three other cases remained under treatment but a short time, so that no conclusion could be reached regarding them.

In the use of tuberculinum purum, I found that, to get the best

results with the least annoyance to my patients, I had to keep to small doses just as with any other product of tubercle bacilli. Reactions did not occur so often as with many other tuberculins from slight increases, but I cannot recommend the larger dosage that has been advised, seeing no advantage in it. In so far as tuberculinum purum appears to render possible the use of tuberculin in a larger field of indications and seems to involve less hazard, its employment is justified, with the caution that the fundamental rules for tuberculin therapy must not be disregarded because of a mistaken assumption that its employment is wholly free from the possibility of harm and that the more is given the better for the patient.

In general it may be said that the specific treatment of tuberculosis is an essential factor, particularly in stationary cases, when general treatment has produced all the improvement possible and a period of quiescence ensues which is ultimately followed by downward progress. Here specific therapy will often start a new internal campaign against the invading organisms and forms an invaluable ally to dietetic and hygiene regime. But always it must be regarded as an ally, and not as a self-sufficient remedy, which makes all other measures dispensable.

Just a few further remarks on mixed or associated infections with tuberculosis. Practically all cases of open tuberculosis have mixed infection. Since pyogenic organisms more readily attack new tissue which goes to make up the capsule of the healing tubercle, it is necessary to rid the tissues of such mixed infection before we can expect to get any local benefit from the action of tuberculin.

Autogenous vaccines are more valuable in this line than stock vaccines, especially for such organisms as the staphylococcus, streptococcus and pneumococcus. Many mixed infections are multiple and require two or more vaccines, or multiple vaccines.

In the presence of necrotic tissue vaccines fail at times, as the antibodies and phagocytes do not reach into the dead tissue. In such cases it becomes necessary to keep the patient on vaccine treatment until such necrotic issue has been thrown off. It may not seem necessary to state the necessity of making new cultures in the course of treatment to be ready to handle new infections.

References.—

- (1) Gabrilowitch. Beitrage zur Klinik der Tuberkulose. Vol. XIX, No. 5 and others.
- (2) White and Avery. Journal of Medical Research, June 1912.
- (3) Michailowskaja. Roussky Vrach. No. 45, 1909.
- (4) Lyon. Boston Medical and Surgical Journal, Aug. 1, 1912.
- (5) Mudgett. International Clinics, Vol. 1, 22nd Series.
- (6) Coon, Chicago Medical Recorder, Dec. 15, 1912.

MALNUTRITION IN SCHOOL CHILDREN—A CLINICAL REPORT.

By BERT I. WYATT, CHICAGO.

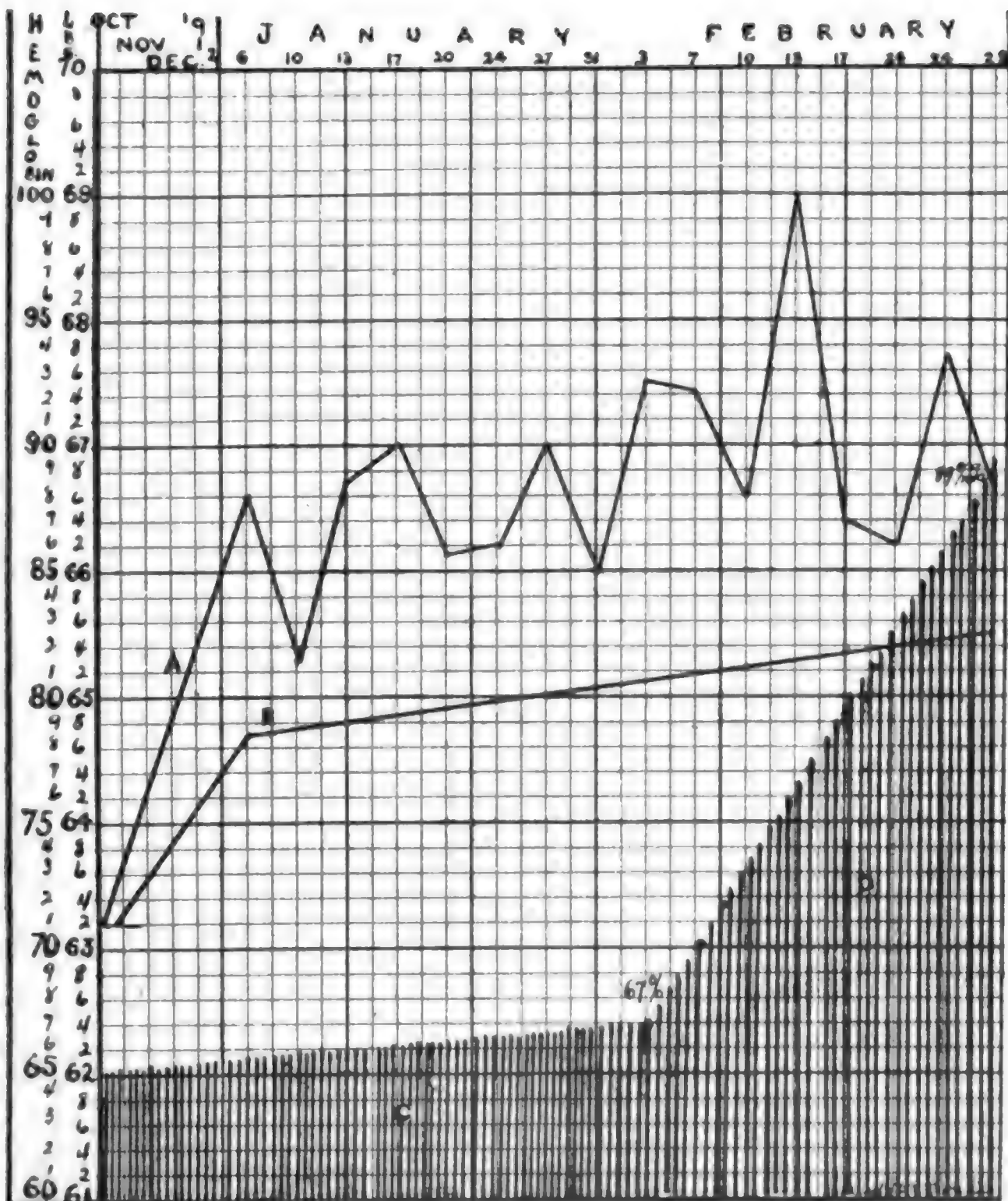
The clinical test referred to herein was made in a Chicago school upon 24 children whose average age was 12 years. It covered a period of 32 days—from January 28th to February 28th, inclusive, but not including Saturdays, Sundays or holidays. Deducting these leaves a net total of 24 days upon which they were actually under observation.

Those selected for the test were aenemics, pretuberculous and in general those suffering from various forms of malnutrition and had been under the same environments for some months before (i. e., additional nourishment, rest, baths, exercise, fresh air, academic work, etc.), with the one exception of the iron tropon which was given during the period stated 3 times daily in 4 gm. doses, making a total daily allowance to each pupil of 12 gms. This was administered in combination with milk and eggs and also spread upon bread with jelly.

Iron tropon was selected as the hematinic to be used for several reasons: (1) It is a hematinic. (2) The fact that it is an albumate of iron in a chocolate base gives it a high caloric food value; this additional caloric value in a thoroughly assimilable food substance being well adapted to the treatment of this particular type of case, and (3) Being easily prepared and decidedly palatable, it readily appeals to the fastidious propensities of these little patients.

For the most part it was taken with avidity. At one time, however, the term "Medicine" was applied to it within the hearing of a pupil. From then on the psychological element entered into consideration and some difficulty was experienced with her. With this one exception we had no trouble. The results obtained are shown in the chart. It will be noted that the fluctuations in weight recorded by A were greater during the period in which the test was conducted. The losses in weight usually correspond to Saturdays and Sundays, during which time the class was not under observation or subject to the same regime. The meteorological conditions were similar during January and February, as also were all the other elements which might have had a bearing upon the hemoglobin count.

5746 CALUMET AVE., CHICAGO, ILL.



A—Fluctuations in weight of children in room.
 B—Average increase in weight of normal children (McMurich).
 C—Hemoglobin count during month of January.
 D—Increase in hemoglobin during February, and with administration of Iron Tropon. Averages for 24 pupils.

PECULIAR CASES OF THE NOSE AND THROAT.

By JOHN C. WARBRICK, M. D., CHICAGO.

Apart from the ordinary number of cases that one comes in contact with in the daily routine practice of the nose, throat and ear, now and again there will come to hand some rather rare and remarkable cases. The first one of these I shall report is that of a married man, about sixty-five years of age. His difficulty was in not being able to open his mouth wide enough to have his throat sprayed on account of some peculiarity in two or three of the muscles attached to the lower jaw in front and to the hyoid bone and thyroid cartilage. He could open his mouth only a very little, just enough to get the food in, but when he tried to open it farther the muscles seemed to stand out like cords and would not relax any further while making an effort. This had been the condition for years. Trying to force the mouth open was of no use, so the throat of the patient could not be sprayed. It may possibly be explained by the fact that the muscles concerned had never been properly developed, for the patient had had huskiness of his throat for a long time and no voice training had ever been taken.

The next case is one that is more interesting still. A physician asked me to examine a man, an Italian, who complained of having a peanut shell stuck in his throat. He had tried for a long time to get it out but could not do so. Upon making an examination of his throat nothing could be seen except some mucus on the pharyngeal wall. Putting the index finger of my left hand in the mouth of the patient and down his throat as far as possible did not give any relief whatever, for the object was still there upon swallowing. Thinking the case rather unusual, after manipulation had failed to dislodge the object it was decided the case was one of the imagination and that there was no peanut shell in his throat at all. A peanut shell was obtained. The man was put on a table lying down on his back, then an instrument was put into his mouth back to his throat, while at the same time the peanut shell was held opposite his mouth. As he got up from the table the instrument was quickly withdrawn from his mouth and the peanut shell was let fall on the floor from his lips, without his knowledge, of course. It was then picked up and shown to the man. He looked at it, swallowed a few times, felt his throat, and said he was all right. He went away smiling and pleased that the peanut shell had at last been taken out of his throat, or rather out of his imagination which had been quieted by the procedure.

Another interesting case is that of a woman, about fifty years

old, who complained of having stones of some kind in her throat somewhere about the upper border of the thyroid cartilage, which she was almost positive she could feel with her fingers. Upon making a careful examination of the parts nothing abnormal or unusual could be found, unless there was some kind of a drawing sensation. The only conclusion to come to in connection with the matter was to call it a case of the imagination. The woman could swallow all right and appeared to be healthy and intelligent, but she was certain she had some kind of stones in her throat.

The same woman also complained of having a cancer, as she called it, growing on her left foot, and stated that a physician in the country where she lived told her that it was a cancer. Upon making an examination a large curved toe nail bent on itself was found growing from the big toe of the left foot. It measured one and one half inches in length, while it was hollow underneath and ridged on the surface, possibly indicating successive stages of growth. It had been growing for about seven years, and the upper part pressing against her shoe caused a good deal of pain, thus giving the woman the idea that it might be cancerous.

The last case is that of an Italian laborer, a single man. He complained of having what he called constant irritations in his throat and sometimes about the upper part of his chest, which bothered him a good deal and which he was afraid meant something serious. The irritations were troublesome at night as well as during the day, causing the patient to cough and clear his throat a good deal of mucus. The patient was about thirty-two years old, strong, active, and had a good appetite. On examination the throat did not show anything serious, only mucus on the pharyngeal wall, while the nasal passages contained mucus and were somewhat occluded.

Formal Transfer
of
**The Property of The College of Physicians
and Surgeons of Chicago**
to
**The Trustees of The University of Illinois
and the Reopening of the Medical Department**
Thursday, March 6th, 1913
at three o'clock
Congress and Honore Streets
Chicago

Programme

Presentation of Deed and Bill of Sale of the Property of The College.

D. A. K. STEELE, M. D., LL. D.
President of The College of Physicians and Surgeons.

Acceptation.

HONORABLE W. L. ABBOTT
President Board of Trustees, University of Illinois.

Announcement of the Reopening of the Medical Department.

EDMUND JAMES JAMES, PH. D., LL. D.
President of The University of Illinois, The State University.

Statement on Behalf of the Faculty.

W. E. QUINE, M. D., LL. D., DEAN
The College of Physicians and Surgeons.

Address.

FRANK BILLINGS, M. D., DEAN
Rush Medical College. (In Affiliation with The University of Chicago.)

Address.

ARTHUR R. EDWARDS, M. D., DEAN
Northwestern University Medical School.

Address.

ARTHUR DEAN BEVAN, M. D.
Rush Medical College. Chairman of Council on Medical Education, American Medical Association.

Officers of the Corporation

DANIEL ATCHINSON KING STEELE, M. D., LL. D., President.
WILLIAM ALLEN PUSEY, A. M., M. D., Vice-President.
WILLIAM MCINTYRE HARSHA, A. B., M. D., Secretary.
FRANK BRECKENRIDGE EARLE, M. D., Treasurer.

PRESENTATION OF THE COLLEGE OF PHYSICIANS AND
SURGEONS OF CHICAGO TO THE TRUSTEES OF THE
UNIVERSITY OF ILLINOIS, MARCH 6, 1913.

ADDRESS BY D. A. K. STEELE, M. D., LL. D.

Early last summer a movement was inaugurated by the Alumni Association of the College of Physicians and Surgeons of Chicago which resulted in the appointment of your speaker as chairman of a committee to secure the property of the College for the University of Illinois, as its permanent medical department.

The other members of this committee were Drs. T. L. Henitz, president of the Alumni Association, and Charles Davison, a former member of the Board of Trustees of the University, and it is to the tireless efforts of these men during the past year, aided by the enthusiastic and generous support of the students and Alumni of the College, and the practical assistance of the Faculty, officers and stockholders that I am enabled today to transfer the College to the University.

Mr. President, in handing over to you this deed and bill of sale, I am not only transferring to the Trustees of the University the tangible property of the College, but with it also goes the franchise, the goodwill and the high ideals we have maintained for the past thirty-one years in developing the College.

We tender you also our Faculty, our students and our Alumni, and I pledge you the loyal support of each and every one of them.

President James and Members of the Board of Trustees, in voluntarily relinquishing the control and ownership of this medical school, we realize that the University is greater than the College, that the State is greater than the University, and that your aspirations and desire to build up and develop a great medical department for the State University equal if not superior to any other similar department in any State in the Union, which shall stand as the exponent of modern scientific medical teaching, is greater than all of these combined. Realizing this, we are filled with larger and nobler thoughts and gladly place our beloved College in your charge. It is worthy of honor and praise for what it has done, but will be worthy of greater honor in what it promises to do under your guidance and direction in fulfilling its manifest destiny in the future.

President Abbott, and Board of Trustees of the University of Illinois: By the unanimous vote of the officers, directors and stockholders of the corporation of the College of Physicians and Surgeons of Chicago, I place in your hands the title to all of their property.

March 6, 1913.

To the Officers and Faculty of the College of Physicians and Surgeons of Chicago:

Gentlemen: I am very sorry that illness confining me to the bed prevents an attendance upon the ceremonies of the formal transfer of the property of the College to the Trustees of the University of Illinois.

To anyone who has an unselfish interest in the advancement of the causes of higher medical education in this city, state and country, and, above all, to that part of the public who have an interest in the welfare of the people in reference to their health, prosperity and happiness, the ceremonies of this day mark an important milestone in medical education in Illinois.

I am one who believes that the state should educate its sons and daughters in medicine as well as in horticulture, agriculture, mining, the law, etc. Indeed, I think that of all the technical educations medicine is the most important. I believe the state should help to educate its men and women in medicine and surgery, and this with a thoroughness which will place its university above the criticism of any educational institution of the world. The state cannot afford to conduct an institution for the education of its men and women in any of the technical professions excepting upon the highest broadest plane.

Medical education, in the opinion of a great many of the best teachers of medicine and the best general educators of the country, should embrace as its minimum preliminary requirement in addition to the high school, two years of university work, which should be specialized in the study of inorganic chemistry, biology, physics, English, German or French.

Because of the amount of laboratory work necessary to a proper comprehension of medicine of the first two years and also in the clinical years, but to a less degree, and because of the great cost of hospitals for teaching, which in a sense must be used as laboratories, the cost of medical education is higher than that of most any other professional training. In all probability a minimum of four hundred dollars per year in the first two years, and if full time or even half time full paid professors were used throughout, the cost of the clinical years would be about three hundred dollars per year per student. A private institution of a state university cannot charge tuition of this amount, but with a state as wealthy as Illinois, it can well afford to give the best opportunity for the study of medicine, in reference to buildings, equipment and teachers and at a cost which

will permit men and women of moderate means to take the four or five years' course. At the same time, it may charge enough to save the state the over expense of medical education as compared with that of some other technical professions already carried out in the state.

I not only believe that the state should teach those of its citizens who desire to study medicine and surgery and teach them as well as may be done in any place in the world, but I also believe that the state should conserve the health of its citizens by a properly conducted scientific state health department. This I think should be centered in the University of Illinois. It has at Urbana-Champaign the buildings, the equipment and the men to carry on a proper organization of the necessary health agencies of the state. From the State University as the main education center should go out to the people all information which can be imparted to a layman, which will enable him to safeguard the lives of himself and family as the State now does for the farmer and for the other owners of domestic animals of the State. With the University of Illinois as the head of all matters pertaining to the health of the citizens of the State and with the University of Illinois engaged in teaching men and women technical professions, prosperity will advance even more rapidly than it has, because health preservation will be one of the main incentives of work and health is one of the necessary principles to secure prosperity and happiness.

Mr. Chairman: Permit me to congratulate the people of the State of Illinois, the University of Illinois and the College of Physicians and Surgeons of Chicago, upon the completion of the union, which it is my hope and I trust the hope of every man and woman who has the health and happiness of the citizens of Illinois at heart, will assume a place and station in the ranks of the progress of medical education which she must perforce occupy.

Very respectfully yours,

(Signed) FRANK BILLINGS,

Dean of Faculty, Rush Medical College.

President Edmund James James:

I regret exceedingly that I cannot be with you this epoch-making day of the University of Illinois.

I congratulate you and the University on the great significance of the permanent establishment of a medical department.

The State is now fulfilling one of its greatest obligations to its citizens, and you personally deserve great credit for the indefatigable zeal you have exercised in its happy consummation.

JOHN B. MURPHY.

ADDRESS GIVEN BY W. L. ABBOTT,

President of the Board of Trustees of the University of Illinois, Accepting the Gift of the College of Physicians and Surgeons.

How inscrutable are the ways of Providence!

For years the University of Illinois endeavored to acquire a medical college where, under state patronage, instruction in the healing art might be given in a way which at least would not compare unfavorably with the standards established by other great universities of the state.

With varying prospects successive Boards of Trustees pursued that object zealously, but when the elusive prize was almost within the grasp it was snatched away and the relation which for thirteen years had existed between the University and the College of Physicians and Surgeons was ended and all effort to effect a combination was abandoned—for a time. But, as it now develops, those who brought about this disappointment were the unconscious instruments of Providence in securing for the University a medical college in a way that would be in keeping with present-day ideals of medical education, which decree that no part of a student's tuition fee shall be diverted from instructional purposes to the profit of the institution.

Subscribing to this principle in conducting the college, its owners found that they could not consistently follow a different one in disposing of it, and that if the college was to come to the University free of mercenary taint, it should come as an unqualified gift of the corporation, the property, the school, its good name and its good friends.

In this spirit the college is now brought to the University and dedicated to the service of suffering humanity; its friends saying, "This is our child; to its birth and development we have contributed of our means and of our lives. It is now yours, save that it shall never cease to be our child, and its success shall always be our pride and glory."

The Board of Trustees, in accepting the gift, is sensible of the obligation which that gift imposes. If the University is to satisfy the expectations of those who contributed to the purchase of the college, it will raise the grade of work done, improve the instruction and the instructional facilities, and contribute liberally to research, using for these purposes the moneys received from tuition fees liberally supplemented with funds received from the state treasury, just as it supports its other great departments.

It is the hope of the Board that in this respect it will not dis-

appoint its friends, but let it be clearly understood that whatever the Board may be enabled to do will depend in a large measure upon the amount of assistance its friends render while the University's budget is under consideration by the legislature and the chief state executive.

Dr. Steele, from you, representing students, alumni, faculty, stockholders, and other friends of the College of Physicians and Surgeons and of medical education, I accept for the Board of Trustees your gift of the deed and bill of sale of the physical property and the control and ownership of the college.

The Board appreciates the effort and sacrifices that you have all made to attain this end, and you may rest assured that with passing years the magnitude of your gift will be more and more recognized. On behalf of the Board of Trustees, the University and the State, I thank you.

President James, for years you and the Board have hoped, worked, prayed,—yes, and fought to have the University possessed of a medical school, which under liberal state patronage and your guidance should become a mighty force for the betterment of man's sanitary condition. Our hopes are now realized so far as the possession of the college is concerned, but for you there still remains the duty of organizing and conducting the institution on a grade commensurate with the funds we may be able to obtain for the purpose. In this new responsibility we believe that your success will be as great as it is with those departments over which you now preside, and also that its medical department will be one of the brightest stars in the University's crown.

As President of the Board of Trustees I now declare that this institution, formerly known as the College of Physicians and Surgeons of Chicago, has ceased to exist as such and has become the College of Medicine of the University of Illinois.

Twenty Years Ago Today in the Recorder

THE BASTARDY LAW OF ILLINOIS.

By E. J. DOERING, M. D.,
President Chicago Gynecological Society.*

Mr. President, Ladies and Gentlemen:—The subject to be briefly submitted to your consideration tonight is, strictly speaking, a legal rather than a medico-legal topic. On the other hand, it is a subject in which we, as physicians, are more interested than any other class of society, for it falls to our lot to witness the mental suffering, the physical agony of the unfortunate mother, it is our duty to usher into the world the most unwelcome of all visitors—the bastard child. On the statute books of the State of Illinois you will find the following laws relating to bastardy, which have been in force for 20 years, since July 1, 1872.

After the usual phraseology relating to complaints, warrants, trial, etc., we read as follows in paragraph viii: In case the issue be found against the defendant or reputed father, or whenever he shall, in open court have confessed, the truth of the order and judgment of the court to pay a sum of money not exceeding one hundred dollars for the first year after the birth of such child, and a sum not exceeding fifty dollars yearly for nine years succeeding said first year, for the support, maintenance and education of such child, and shall moreover be adjudged to pay all the costs of the prosecution, for which cost execution shall issue as in other cases. And the said reputed father shall be required by said Court to give bond with sufficient security to be approved by the judge of said Court, for the payment of such sum of money as shall be ordered by said Court, as aforesaid, which said bond shall be made payable to the People of the State of

*Let us not forget that what we are accomplishing today is largely due to the foundations laid by our elders in the profession, for which reason we desire to re-publish a series of papers written twenty years or more ago by various members of the Chicago Medical Society.

Illinois, and conditioned for the due and faithful payment of said yearly sum, in equal quarterly installments, and the clerk of said Court, which bond shall be filed and preserved by the clerk of said Court. Paragraph xv, provides: If the mother of any bastard child and the reputed father, shall at any time after its birth, inter-marry, the said child shall, in all respects, be deemed and held legitimate, and the bond aforesaid be void. Paragraph xvi further provides: No prosecution under this Act shall be brought after two years from the birth of the bastard child.

Now first of all I desire you to notice that process under this Act is a civil, not a criminal proceeding. It means in other words simply a civil suit for damages to support the child, without in the least reflecting on the defendant in any manner whatsoever. This is all the redress the law permits to the unfortunate plaintiff. And this is called justice.

Now I presume no one will seriously question the statement that in ninety-nine if not one hundred per cent of all cases of bastardy, the male has been the aggressive party, nor that the vast majority of cases of this kind are simply cases of seduction under the verbal promise of marriage. But the State of Illinois says officially to the male citizens, such an offense is not criminal and places the damages for degrading womanhood, for cursing innocent childhood, for producing untold misery, anguish and torment at the uniform price of five hundred and fifty dollars. On the other hand, when a wretched woman, driven to despair by the outrage committed on her kills her seducer and father of her unborn child, she is promptly acquitted by the uniform verdict of the jury "not guilty." What inconsistency! Murder justified when the State of Illinois says a fine of five hundred and fifty dollars would have been ample punishment!

Such infamous perversion of justice as expressed by the bastardy law of this State, bears of course legitimate fruit. Under its fostering care the number of illegitimate births are constantly increasing, the business of the abortionist becoming more flourishing, houses of prostitution filled with the victims of the seducer, all, thanks to their partner in crime, the State of Illinois.

Now, Mr. President, we have in this Society repeatedly expressed our indignation at the laws relating to the insane, would it not be well to pay some attention to the insane laws relating to the sane? Now consider this Bastardy Act of Illinois. If you hold that the woman in question has forfeited all claims, no matter how her ruin has been accomplished, by what authority do you condemn her inno-

cent offspring? Is it just, is it humane, is it Christian to curse the whole life of an innocent being, by damning it from birth until death, by stamping on its brow indelibly the word "bastard"? If you strangle such an infant at birth, you are guilty of murder, but strangling it would be an act of mercy, rather than the existence to which you are pleased to condemn it. The statutes provide that if any time after its birth the father marry the mother, said child becomes legitimate. Is it right, is it just to leave to the choice of the guilty parent the happiness or wretchedness of two immortal lives? Leave it to the seducer's choice whether to condemn a suffering, broken-hearted mother to be a social outcast, her innocent offspring to be a bastard? Do you call this justice? Mr. President, I care not for ancient, I care not for modern law, I care not for precedents in such matters I recognize a higher—a moral law—and I hold, sir, that cohabitation with resulting pregnancy constitutes marriage in its truest sense, and justice is but a mockery, until the statutes declare it also to be such in a legal sense. Not until then, sir, has the State done its first duty—justice to all—justice to the man, justice to the woman, justice to the child—that is equality—now it is tyranny.

If you raise the objection that the parent might be already a married man, I answer, apply to him the criminal code relating to bigamy and permit his victim to assume his name, and constitute the child an heir-at-law. Vice versa, if the mother be already married, punish her for bigamy and permit the child to assume the name of its father with all the rights pertaining thereto.

Where the question of parentage cannot be decided as in the case of a prostitute, often such child should be a ward of the State, whose duty it should be to provide for its adoption among the farming population with a suitable compensation to its foster parents. Minors should be treated as adults. It would teach the parents the necessity to impress upon their children when arriving at the proper age, the sacredness of the marital relations, instead of leaving them as now to get all information on sexual matters from lewd books and evil companions. Finally, if you raise the objection that rich men and rich men's sons might fall prey to designing women, I ask, what of it? Think of the millions of poor women who have been made the victims of designing men and ever will be: I sincerely hope that some of the legal members of this Society will become sufficiently interested in this matter to prepare a Bill in accordance with the views so briefly uttered, and I will gladly attend to the details necessary to submit it to the Legislature at the coming session. While

radical action may not be hoped for till women have a right to vote, it is still within the range of possibilities to change the Bastardy Act into a criminal procedure, and one important advance towards justice will have been gained.

Our social fabric is full of imperfections, crying evils abound everywhere which sooner or later may produce an upheaval of stupendous proportions, but to my mind the greatest outrage of all committed by legal sanction, is the crushing of two lives, the damning of two souls for life and of eternity, the violation of all divine law—the Bastardy Act of Illinois.

DISCUSSION.

Dr. Sarah Hackett Stevenson.—There are only a few things I have to say in regard to this law, and they have already been well said by the writer of the paper. As has been stated, the complaint of bastardy is not a criminal charge, it is quasi-criminal and quasi-civil. Upon investigation I find it is a County Court proceeding, not considered in the light of redressing a wrong to the mother, but is designed only to protect the County from the support of paupers. I think this is a point we should consider in our discussion. The penalty upon a conviction on this charge is “to pay a sum of money not exceeding one hundred dollars for the first year and not to exceed fifty dollars yearly for the nine years succeeding, for the support, maintenance and education of such child, and he shall pay the costs of prosecution.” I call your attention to the fact that no account is taken of compensation to the mother in this proceeding, although there is an alternative; if the man has property she has a remedy in a civil suit for damages. It is my opinion that the law is entirely inadequate, there is no good reason why judgment in such cases should not be rendered for double and treble the sum now allowed. The man who is father of an illegitimate child should pay as much, if not more for its support, than the father of a legitimate child is obliged to pay for the support of his child. The illegitimate child certainly needs more protection from the law than the child born into a family with family protection; if any difference is made it should be made in favor of the unprotected innocent child, the victim. And furthermore, there should be an additional penalty, what is known as “exemplary damages” to the mother. Not a mere reimbursement of pecuniary loss, but a compensation for the injuries sustained. These are the points I should make in a discussion of this subject, viz.: That it is not a criminal proceeding; and the damages are inadequate. They are simply what it would cost the County

to maintain the child. We know a mother with a child must be at a greater expense in taking care of that child than the County could possibly be. In the first place, her own earning capacity is almost ruined, and the cost which falls upon her in its maintenance is much more than the cost to the County in taking care of that child should it become a pauper. As I understand it, the monetary basis is upon the question of the cost to the County in taking care of this child if it becomes a pauper. But if we encourage the mother to take care of her child, which all people of good morals are endeavoring to do, the cost of maintaining it is much more than it would be to the County, because the County places these children in institutions where they can be taken care of at the lowest possible rate.

Dr. C. D. Wescott.—It seems to me that no argument is necessary to make us all feel as Dr. Doering and Dr. Stevenson do in this matter. A mere statement of the law is sufficient to convince us that it is not only inadequate, but wrong, that the woman is not considered at all. The best point in the doctor's paper, however, is that the Act which has given origin to new life should constitute legal marriage, as it certainly does actual marriage. The law should make every man feel that if he is an actual father, he owes it both to the mother and to the child to be as much a father to that child as the mother will allow him. If she does not want to live with the man who has deceived and wronged her, she certainly has a right to claim everything else that the father of that child should do for it and for her. If it is possible for this Society to do anything to influence legislation in that direction we should do it. We should certainly give Dr. Doering hearty thanks and approve the paper in a public way.

Mr. Joseph W. Errant.—I have been brought in contact, from the lawyer's side, with a good many of these cases, and speaking from that standpoint I heartily approve of what has been said here this evening. Every word the speaker of the evening has said in regard to the bastardy laws of the State of Illinois is true, and if he had spoken stronger he could not have gone far astray. It is simply another illustration of the fact that many of us meet with in considering the laws of the State of Illinois, that whereas in material prosperity we claim to be one of the first States of this Union, yet so far as our legal system is concerned we are in the dark ages. This is only one of a thousand instances that might be brought up to show the weakness in our practice and in our laws, and this brings home to us this thought: What we need in the State of Illinois is a com-

mission of men learned in the law, who have had wide experience and will devote five or ten years of their lives, by the consent of the people, to investigating this subject and devising for us a legal system under which this great community may go forward in the future. Three-fourths of the States of this Union have laws making seduction a criminal offense. The great State of Illinois by this Bastardy Act gives a license to any man to seduce any woman in this community that he may see fit to follow. A license, that's what it is, and nothing else. Yet, when it was proposed some four years ago to place a law on the statute books of this State making seduction a criminal offense, the men in the committee said, "it is all very well to protect your daughters, but we must also protect our sons; what will become of the poor boys if we place such a law as this upon the statute books of this State?" That is the way they looked at it. So back of this law there must be public opinion. There must be a social opinion which will demand a different order of things, which will look at mothers from a different point of view. Back of such legislation as you call for, there must be a social opinion among women which will not trample upon any woman who is placed in the position you have described tonight, and which has come under my observation, not once, but a hundred times, not the social opinion of the mother, for instance, who when her son has done a wrong act passes it over and gladly welcomes him back to the home, but shuts the door to the daughter who has possibly made a misstep. So in addition to what Dr. Doering has said I would impress upon you the fact that this question is a very large one indeed, that it is not merely a question of legislation and law, but also a question which has very much to do with the social opinion of men and women.

It is an absurdity to assume that a woman can bring up a child on the pittance which this law provides. Further than that there is no provision made under this law for the long period of inability to work which may precede the birth of the child; and if the child does not live there is no payment at all. It is purely a question of support. This law is simply one evidence of many absurdities on our statute books, all of which ought to be done away with and better provisions made. We face the fact that there is not sufficient public opinion in this community to demand even the law which I have described, and which provides that seduction shall be made a criminal offense, whereas in three-fourths of the States such a law exists. We have furthermore to develop a social opinion which will consider this

question from a larger point of view. It is a social question, and it is also a legal question.

Mr. David J. Wile.—Inasmuch as the proceedings of this meeting are to be published to the world, it is but proper that exactness should characterize statements concerning the bastardy statutes of Illinois. Interesting as is Dr. Doering's paper, it has not given an accurate statement of the law as it stands today. In addition to what has been stated, the statute provides, that after a defendant has been adjudged the father of the bastard child—in case he refuses or neglects to give such security as may be ordered by the Court—he shall be committed to the jail of the County, there to remain until he shall comply with such order, or until otherwise discharged by due course of law. Any person so committed shall be discharged for insolvency or inability to give bond; provided, such discharge shall not be made within six months after commitment.

The statute further provides: The mother of a bastard child, before or after its birth, may release the reputed father of such child from all legal liability on account of such bastardy, upon such terms as may be consented to in writing by the judge of the County Court of the County in which such mother resides: Provided, a release obtained from such mother in consideration of a payment to her of a sum of money less than four hundred dollars, in the absence of the written consent of the County judge, shall not be a bar to a suit for bastardy against such father, but if, after such release is obtained, suit be instituted against such father, and the issue be found against him, he shall be entitled to a set-off for the amount so paid, and it shall be accredited to him as of the first payment or payments: And provided, further, that such father may compromise all his legal liability on account of such bastard child, with the mother thereof, without the written consent of the County judge, by paying to her any sum not less than four hundred dollars.

I do not regard Dr. Doering's proposition of ipso facto marriage as a practicable remedy. In its very essence, marriage in the first instance is purely matter of contract, not enforceable against the will of either party. The action for breach of a promise to marry is one to recover damages for breach of a contract, not for the commission of a tort. An enforced marriage does not mean support.

The law provides for the recovery of mere money damages in cases of seduction. The ability to enforce payment depends upon a defendant's financial condition. Strange as it may seem in these days of moral enlightenment, Illinois lags far behind her sister States

by failure to treat real seduction as a heavily punishable crime. There is reason to hope that the next Legislature will remedy this defect in the law.

The real truth is, that illegitimate births occur principally among those classes of our population where pecuniary redress is practically impossible, because of poverty. In the so-called "higher classes of society," other means seem to be accessible, whereby the responsibilities of paternity and maternity may be evaded. That those means come within already existent criminal inhibition, quite as worthy of consideration as the subject discussed this evening, may be safely admitted.

It occurs to me, however, that many of the shortcomings of the present bastardy law might be remedied if the jurisdiction of Courts of Chancery were enlarged so far as to permit the prosecution of a bill for separate maintenance for the benefit of the innocent child, under provisions similar to those which now exist in favor of wives who, without their fault, live separate and apart from their husbands.

The broader and deeper question involved cannot be settled by enacted laws or judicial decrees.

Dr. J. B. Hamilton.—In regard to one point suggested by the last speaker there is a fact bearing on this which is a precedent: In the Legislature of Washington Territory some years ago they enacted a law in regard to white men living with Indian women, that all such as were found and reported to the Court should be recorded as legally married and the children should be declared legitimate. That was carried into effect, and hundreds of persons who had gone into Washington Territory at an early day and lived with squaws, were obliged to take care of children under the act cited. I cannot give its exact date, but I think it was 1875. That carried into effect the suggestion of Dr. Doering, and I never heard that there was any legal objection to it on the part of anybody.

Mr. L. Kistler.—It is perhaps difficult for anyone to suggest just exactly what would be the proper line to take. It is true that a man who is responsible for the existence of an innocent being should be held responsible for the support, not only for a certain number of years, but as long as it may be necessary. It seems to me an ordinary rational view would demand that a man should be held responsible by society for his acts. In my practice I have prosecuted one bastardy case, and that set me to thinking. I cannot repeat my language, but the defendant got so angry that he got up and shook his fist in my face, and of course the result was he was convicted. However, he made amends by marrying the girl subsequently. I am inclined to

think that our law is simply the outgrowth in a measure of the average public sentiment. We may hold advanced views, but as a rule no thoughts or views culminate in the law, because law is simply a crystallization of the average common sentiment of society. I sometimes am discouraged, but recently I had occasion to examine the jurisprudence of the State of Rhode Island, and I found that it is about two hundred years behind the times; so I came back to the State of Illinois feeling that we have made considerable advancement.

In regard to this Bastardy Act, it could be improved. As it stands it is simply an attempt to provide for the support of the innocent child, irrespective of the effect it may have upon the mother or upon the father, but it fails to do this under the existing state of society. There should be abundant provision for the child until it is able to take care of itself. I would feel inclined to go so far as to make the father thoroughly responsible for the child. As to the mother, of course the Bastardy Act goes upon the basis that one is as guilty as the other and is not for it to say which it is. I think, however, that in most instances the man is the responsible party, although there seem to be, in the condition of society as it is, some exceptions. But in any case I would go as far as suggested by the speaker before me, that there should be more abundant provision by legislation that the innocent one should be provided for, and the father be held responsible just the same as if the child had been born in wedlock.

Judge Horton.—It would not be an easy matter to those who have had any experience to say just how you would defend a man, guilty or innocent of this charge. I have never known a man to be acquitted when he was charged with it, and a lawyer who could try such a case before the average jury and get the man free when the woman accuses him, would have a successful practice in Chicago.

As to the topic of legislation, I do not know whether Dr. Doering knew what he was assuming when he offered to take charge of this, but I had a little experience some years ago when I sent down to the Legislature an amendment to the divorce law. It was supported by every paper in Chicago. The Tribune got the views of nearly all the judges in the State of Illinois, and published column after column recommending it. It passed the House but failed in the Senate, and some wag suggested to me that the reason it failed was that everyone of those fellows knew that his wife had good reasons for a divorce, and did not approve of enlarging the subject.

LEGITIMIZE EVERY CHILD.*

CHICAGO, April 20, 1913—(Editor of the Tribune.)—Two notes of deepest significance have recently appeared in *The Tribune* without comment, and with your permission I would like to call especial attention to them. One was the remark of the judge on the bench of the Moral court, who said to the policemen who brought in some street walking girls, "Where are the men in this case? I want the men brought in here. There will be no double standard of morality in this court."

This quoted remark gave me a thrill of pride in western manhood, and brought a hope for something real in way of justice to women. To arrest the poor, helpless women as offenders and wink at the men in the case is the procedure in most courts now as it has been in the past, but this judge heralded a new notion of chivalry as well as justice.

But this incident, important as it is, pales before the announced intention on the part of the Hon. Joseph Carter to frame a bill which shall do away with illegitimate children. His magnificent audacity runs as far as this: "The birth of a child to a man and woman shall constitute a common law marriage. The child shall be legitimate, bear the father's name, and be a lawful heir. The dissolution of such marriage shall require a regular divorce, and the wife shall be entitled to alimony and the support of her child."

The effect of this law is so far reaching that it will appall many men, but it is just. In it is the key to the social evil problem. All the rest of our measures for relief and measures for restriction are mere plasters for the cancer—here is the surgeon's knife. "This will make trouble for men—endless trouble," I hear objectors say. So it will, and so it should. Why should the agony, the blood, the tears, all fall upon the weaker partner in the wrongdoing? Why should men have all the "fun" and women all the pain and disgrace? If every girl upon becoming a mother were seized of a wife's rights seducers would not be waiting at the door of every shop like dog wolves, ruthless and unclean, and semi-respectable men would be somewhat less ready to visit the red light district for an evening's "bat."

I have long held that there should be no such thing as an illegitimate child, and that any mother should be sanctified by the agony of her childbed, but I never expected to have a legislator put my extreme notions into a bill. I have written Mr. Carter, expressing my high notion of his humanity and bravery, and offering my cordial support. Here is a bill for the Progressives to take up and "champion to the utterance." This and the minimum wage law would make America more than civilized—they would make us humanitarian—almost Christian.

HAMLIN GARLAND.

GET AFTER THE BACHELORS.*

CHICAGO, April 24, 1913.—(Editor of the Tribune.)—Hamlin Garland is right. Let the state legitimize every child. I believe the quickest way to minimize the social evil is to let the women alone and go after the men. The constant increase of single men who are shirking the responsibilities of a home is concomitant with the increase of the social evil, and if every woman knew that she could lay a heavy tax on the responsible man by acquiring a common law interest in his income or estate, he would more naturally look for a wife and more homes would supersede the apparently growing tendency toward selfish, independent lives. I also think that the entire guardianship of the marriage vow should be transferred from the church to the state.

J. C. ALLING.

*It is interesting to note two prominent citizens of Chicago urging this same remedy within the last three weeks.—[Ed.]

THE CHICAGO MEDICAL RECORDER

AND
JOURNAL OF THE MEDICO-LEGAL SOCIETY

EDITORIAL BOARD

DR. E. W. ANDREWS	DR. FRANKLIN H. MARTIN.
DR. FRANK T. ANDREWS.	DR. JOSEPH MATTESON.
DR. CHARLES C. BEERY.	DR. FREDERICK MENGE.
DR. R. W. BISHOP.	DR. THOS. J. WATKINS.
DR. JAMES BURRY.	DR. SAMUEL C. PLUMMER.
DR. HENRY T. BYFORD.	DR. ARTHUR R. REYNOLDS.
DR. FRANK CARY.	DR. HOMER M. THOMAS
DR. E. J. DOERING.	DR. H. H. FROTHINGHAM.
DR. JUNIUS C. HOAG.	DR. OTTO L. SCHMIDT.
DR. FRANK S. JOHNSON.	DR. D. A. K. STEELE.

DR. A. CHURCH.

COMMITTEE ON PUBLICATION

E. J. DOERING	A. R. REYNOLDS	HENRY T. BYFORD
---------------	----------------	-----------------

Vol. XXXV. No 5.

PUBLISHED MONTHLY.

Pullman Building

SINGLE COPIES 20 CTS.

NEW SERIES.

Chicago, Ill., May 15, 1913.

\$1 A YEAR IN ADVANCE.

Editorial.

SANITATION THAT PAYS.

Seventy one thousand six hundred and eighty-one persons now living in Chicago would be dead and in their graves had it not been for the operation of the drainage channel of the Sanitary District of Chicago. This illuminating and instructive statement is made possible by a study of figures prepared by the Department of Health from their mortality records during the past twenty-six years. The period covered in the study the department has made is the thirteen years which have elapsed since the opening of the drainage channel and the thirteen years immediately preceding. The occurrence of deaths from typhoid fever and other bowel diseases is usually regarded by sanitarians as the measure of safety from disease produced by impure water.

The drainage channel was opened January 17, 1900, and the department has summed up all the deaths from the impure water

diseases for the thirteen years ended December 31, 1912, and have compared the result with the thirteen years ended December 31, 1899. Taking the total mortality from these diseases for the two thirteen-year periods and taking into account the increase of population and the decreased mortality for the later period, they are able to show that if the rate of the first thirteen-year period had continued through the second thirteen-year period 71,681 more persons would have died than did actually die.

This brilliant showing justifies the drainage canal and all it has cost in the past or will cost in the future. Human life cannot be valued in dollars and cents, but it is customary for purposes of this kind to place a value of \$5,000 on each life saved. At this rate the money gain to the city and state from these 71,681 living people is \$358,405,000. The cost of the drainage canal and co-ordinate work, up to date, has been in round numbers \$76,000,000, leaving a balance on the credit side of Chicago's ledger of over \$282,000,000 through the purification of her water supply alone.

CORRECTING AN EVIL.

Dr. Willis O. Nance, alderman from the 7th ward of Chicago, has been active in preparing and furthering a bill introduced in the legislature at Springfield by Senator Hurburgh to suppress an indecent, dishonest and dangerous form of advertising by so-called doctors. It deserves to pass and be enacted into law.

Heretofore the suppression of such parasites has been left to the State Board of Health under their vague authority of determining what is unprofessional conduct.

The courts do not look kindly on delegated authority to any executive where it is within the knowledge and power of the legislature to be specific in an enactment.

All medical men will back the senator and his bill, and others who give any thought to the subject will do the same.

Alderman Nance is fully justifying the confidence his constituents have placed in him.

VICE INVESTIGATION.

One thing the Senate Vice Investigating Commission has given since it began its work is a large supply of discussion about the illicit relations of the sexes in the daily newspapers. Questions glibly dis-

cussed now in the family papers could scarcely be sent through the mails a few years ago.

Much has been said about the low wages paid young girls where employed and many have been the intimations that lewd habits were profitable. Nothing is farther from the truth,—a life of harlotry is not profitable. It would not be true if the unfortunates were guaranteed good health and long life. The certainty of disease and premature death makes it the least profitable and most hazardous of all human pursuits.

Young girls do not make their first misstep in the hope of gain, but usually after long and persistent imploring by their lovers combined with the exercise of the strongest and most necessary impulse with which human beings are endowed.

It has not yet been shown that girls who go wrong are any more numerous among the poor than among those more comfortably off. Another thing that has not been shown is that all girls who make a misstep do not become outcasts. Very many get righted up and live useful lives. Those who pursue a wayward course have an abnormal streak in them to start with.

It has been frequently stated that prostitution is a man question and not a woman question. It is both, but man's responsibility is greatest for he is the patron and furnishes the money to support it. Moreover, it is not a young's man's question, for young men whatever their moral tendency may be do not have the money. It is men of older growth who are the greatest sinners. Let the men who furnish the money be hunted down as are the weak women who are simply clay in the hands of the potter, and prostitution as practiced today would soon be obliterated.

The tendency of modern civilization makes for a better order of things. It is not so very long ago that practically all women were kept behind veils and were housed behind windows that were shuttered and barred. Today in all civilized lands women, old or young, unattended may ordinarily walk the streets in perfect safety from molestation. This is not so much because men are better but because women have risen equal to protecting themselves in the larger freedom they now enjoy. The further extension of woman's freedom and equal voice with men in all human affairs is the remedy. Equal suffrage, equal voice in making laws and especially in their enforcement, will rid the land of prostitution as a traffic, for then both will be equal in law and public opinion will hold each sex equally responsible in morals.

Book Reviews

THE MODERN TREATMENT OF NERVOUS AND MENTAL DISEASES. By eminent American and British authors. Edited by William A. White, M. D., Superintendent of the Government Hospital for the Insane, Washington, D. C.; Professor of Nervous and Mental Diseases in the Georgetown University and in the George Washington University; Lecturer on Mental Diseases in the U. S. Army and U. S. Navy Medical School, Washington, D. C., and Smith Ely Jelliffe, A. M., M. D., Ph. D., Adjunct Professor of Diseases of the Mind and Nervous System in the Post-Graduate Medical School and Hospital; Visiting Neurologist to the City Hospital; Consulting Neurologist to the Manhattan State Hospital, New York, N. Y. Two octavo volumes, containing about 900 pages each, illustrated. Per volume, cloth, \$6.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1913.

In a preface to this work, which promises to be of monumental value as well as size, we read that it is devoted to the treatment of nervous and mental disorders, and designed to meet the needs which the rapid advances in knowledge of neurology and psychiatry have created; that the nervous system is here regarded as a whole, inclusive of the mind, so that its disturbances in any and all its functions, mental as well as physical, are the appropriate subjects for therapeutics.

With this task before them the editors have gathered together a brilliant staff of contributors. One's mind is immediately disabused of the idea that this is a mere handbook of treatment and therapeutics. It is an encyclopedic treatise on the nature and character of the diseases as well as their treatment. Indeed, one is immediately impressed with the fact that the sections that ordinarily would be considered as directly concerned with therapeutics and treatment comprise but a very small fraction of the work. It would seem as if the title of the work therefore were not sufficiently comprehensive. The table of contents of this volume gives a better idea of the matter contained in the work.

For instance, Chapter I deals with eugenics and heredity in nervous and mental disorders, and is a very scholarly presentation of the subject by Dr. William A. White. A chapter on education is very properly included and is a subject to which physicians do not give sufficient attention, and in the management and development of nervous children it is an extremely important matter.

As might be expected, sexual problems in regard to nervous and

mental disorders are treated at length. We here find an extremely good exposition of these topics by Havelock Ellis, who takes a more judicial view of many of these matters than he did in some of his early publications on similar subjects. Indeed, his is a conservative and instructive presentation of the whole matter.

Educational treatment of the feeble-minded; Delinquency and crime in relation to mental defect; Immigration and the mixture of races in relation to the mental health of the nation, are adequately and interestingly presented by different writers. Alcoholism and alcoholic psychoses furnish a chapter of extreme value.

The treatment of the neuroses, including the psychoneuroses, by Dr. Ernest Jones brings forward very prominently the Freudian doctrines and the method of psycho-analysis. This point of view is also prominent in other places throughout the volume, whether deservedly so or otherwise perhaps only time will prove, but at least it presents an appropriate exposition of these more recent psychological contributions.

The traumatic neuroses and occupational neuroses are presented by Dr. Thomas in an admirably balanced chapter. The very recent and great interest in the disturbances of internal secretions also has a careful exposition. Manic depressive psychoses and their treatment; the treatment of dementia praecox and allied conditions; the treatment of paranoia and paranoid states all are admirably presented.

Of great but less general interest are the prison psychoses; the application of legal measures in their remedial bearings; nervous and mental disorders in their military relations; and functions of the hospital in nervous and mental disorders.

The subject of presenile arteriosclerotic and senile disorders of the brain and cord, furnishes an opportunity for Dr. A. M. Barrett to present a very interesting, a very valuable, and a very important chapter on these conditions which are so briefly passed over in average works. The whole subject of the psychology, physiology and pathology of senility is practically an unworked field, but we have here a contribution to this subject of distinct importance.

The entire volume shows a finish and careful adjustment that is unusual in a composite work, and the succeeding volume will be looked for with deep interest. This work is not written entirely for the medical profession. It has a distinct interest for lawyer and sociologist, yet the therapeutic goal has been kept in view throughout. It constitutes a work without a parallel and consequently is beyond comparison.

A. CHURCH.

GEBURTSHILFLICHES VADEMEKUM FÜR STUDIERENDE UND ARZTE.

By Prof. A. Dührssen, Berlin. With 43 Illustrations. Tenth revised and enlarged edition, 1913. Berlin: Published by S. Karger, Karlstrasse 15. Price, M. 5.60.

This compendium of obstetrics has reached its tenth edition in Germany. It is a book very similar in style to our popular King's Manual of Obstetrics. It is intended to familiarize the student with the essentials of obstetrics and furnish the physician a ready councillor. Special attention has been given by the author to every detail of modern antisepsis, and we find the advice given sound throughout. The book is thoroughly up to date and is evidently based upon much practical experience. We note that it has been translated and is published in English, French, Italian, Polish and the Russian languages, certainly a tribute to the author's success in writing a popular compendium on the care of women in pregnancy, childbirth and the puerperal state.

INSURANCE MEDICINE. Being Suggestions to Medical Examiners. By

Henry H. Schroeder, M. D., Medical Director, Mutual Life Insurance Company of New York; Editor Insurance Department, Medical Record. New York: William Wood & Co., 1913. Price, \$2.00.

This is a most valuable guide for the young insurance examiner and for that matter for many older ones. It consists of a series of articles written by the very capable chief medical director of the Mutual Life Insurance Company of New York. It takes in general considerations, such as tact, judgment, place and methods of examination, personal history, family history, physical examination, examination of women, the urine, fraudulent practices, etc.

The book is written in a most entertaining style, like a personal talk with his medical examiners, and is full of good advice, sound judgment and valuable information. We commend it highly to both medical examiners and medical students generally. It will also teach young physicians how to be accurate in the examination of their patients.

THE PRINCIPLES AND PRACTICE OF MEDICINE. Designed for the Use

of Practitioners and Students of Medicine. By Sir William Osler, Bt., M. D., F. R. S., Fellow of the Royal College of Physicians, London; Regius Professor of Medicine, Oxford University; Honorary Professor of Medicine, Johns Hopkins University, Baltimore, etc. Eighth Edition. Largely Rewritten and

Thoroughly Revised with the Assistance of Thomas McCrae, M. D., Fellow of the Royal College of Physicians, London; Professor of Medicine, Jefferson Medical College, Philadelphia. New York and London: D. Appleton & Co., 1912. Price. . .

It is sufficient to announce a new edition of Osler's practice. All other comments are superfluous. It is one of the great standard works on the practice of medicine by which all other books are judged. This edition has been largely rewritten and thoroughly revised by Osler, with the assistance of Thomas McCrae, Professor of Medicine, Jefferson Medical College.

As the author states in his preface to this edition, "To try to keep the book up to date has been a pleasure and an ambition." New matter has been added in all the various sections in which the book is divided, especially of course, in typhoid and typhoid fevers, pneumonia, tuberculosis, and syphilis. New sections deal with Leishmaniasis, the Colon Infections, Poliomyelitis, Pellagra, Organs of Internal Secretions, Blood Diseases, etc. The book remains without saying,—at the very front of our most reliable authorities on all that pertains to the practice of medicine.

PRIVATE DUTY NURSING. By Katharine De Witt, R. N., Graduate of Mount Holyoke Seminary and of the Illinois Training School for Nurses; Assistant Editor of the American Journal of Nursing. Philadelphia: J. B. Lippincott Company, 1913.

This little book upon nursing in the home seems to contain much that is of value and to be a reliable guide to nurses taking up that special line. That private duty nursing differs widely from hospital nursing in many of its duties, its technic, and above all in the ethical relations to family and physician, will soon become apparent to a hospital nurse entering upon the latter special line. This book will aid her greatly and we believe that if these hints, suggestions and rules were more generally followed, much of the feeling lately manifested by the medical profession, particularly in the East, would disappear.

THE SURGERY OF THE STOMACH. A Handbook of Diagnosis and Treatment. By Herbert J. Paterson, M. A., M. C., M. B. (Cantab.), F. R. C. S., London. With Plates. New York: William Wood & Company. 1913.

This is a most efficient work on stomach surgery. The author refers to the brilliant progress and the great achievements in surgical

operations on the stomach, but regrets that in gastric cancer so very little is still accomplished on account of the great delay before these cases reach the surgeon. In his practice only five per cent of the cases can be operated on. He believes if the stomach tube were a routine part of gastric diagnosis, early operation in cancer would be the rule instead of the exception. He gives due credit to what has been accomplished by our American surgeons. Special attention is given to gastro-jejunostomy and the illustrations are numerous and excellent. There are splendid chapters on the various forms of ulcerations, complications and treatment, gastric, carcinoma and sarcoma. In short, it is a book which should be found in the library of every progressive surgeon.

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA.
Third Series. Volume the Thirty-fourth. Philadelphia: Printed for the College, 1912.

This volume contains the usual amount of good material. It is always a pleasure and a satisfaction to read these annual reports from the College of Physicians of Philadelphia.

OPHTHALMOLOGY FOR VETERINARIANS. By Walter N. Sharp, M. D.,
Professor of Ophthalmology in the Indiana Veterinary College.
12mo of 210 pages, illustrated. Philadelphia and London:
W. B. Saunders Company, 1913. Cloth, \$2.00 net.

This is a book on a subject too much neglected in the past, as very little has been written so far. It deals mainly with the external diseases of the eye in animals, but also treats of diseases of the retina, choroid, optic nerve, glaucoma, etc. It is written in a clear, concise manner, well illustrated, and no doubt will be welcomed by our friends in the veterinary profession.

THE OPERATING ROOM AND THE PATIENT. By Russell S. Fowler,
M. D., Chief Surgeon First Division, German Hospital, Brook-
lyn, New York. Third Edition, Rewritten and Enlarged. Octavo
volume of 611 pages, with 212 illustrations. Philadelphia and
London: W. B. Saunders Company, 1913. Cloth, \$3.50 net.

This is one of the books which are simply indispensable to the student, the interne, or the surgeon himself. It gives a complete synopsis of all the requirements for surgical operations, pre- as well as post-operative treatment, by an expert operator. This edition is practically rewritten and much enlarged. In his preface the author

summarizes surgical treatment as follows: "Careful anesthesia, exact hemostasis, asepsis, rest of the injured part, use of the rest of the body, feeding advanced to normal as fast as the anæsthetic weakened stomach can care for it, and the following of the general rules of hygiene."

The book is finely illustrated, and we must congratulate the young men of today who have such splendid books to guide them in their duties as internes, or to qualify them for the exactness required of the surgeon of today.

News Items.

To Rent.—For desirable office hours in a first-class suite at reasonable rates, apply to Dr. A. M. Corwin, 1114 to 1116 Venetian Building, Chicago.

To Rent.—Hours to a physician in a furnished suite. Apply to 1110 Stewart Building, cor. State and Washington Streets.

Personal.—Dr. H. J. Achard has accepted a position as librarian to the von Ruck Research Laboratory for Tuberculosis in Asheville, North Carolina. He moved there early this month.

At a meeting of the Physicians' Club of Chicago, on May 2d, the following directors were elected: Dr. J. B. Herrick, Dr. D. W. Graham, Dr. S. C. Stanton. Dr. Alfred Murray was reelected secretary.

Dr. Hugh N. MacKechie wishes to announce the removal of his office from Suite 808 to Suite 1202, Chicago Savings Bank Building, and change of hours from 12-1 to 1-3. Telephone Central 4104.

At the annual meeting of the Association of the Medical Reserve Corps, U. S. Army, Illinois Division, held at Hotel La Salle, April 22, 1913, the following officers were elected for the ensuing year: 1st Lieutenant Junius C. Hoag, president; 1st Lieutenant Wm. L. Baum, vice-president; 1st Lieutenant John Allen Hornsby, secretary and treasurer; 1st Lieutenants Arthur R. Reynolds and E. W. Andrews, councillors for two years.

Dr. Liston H. Montgomery was elected president of the Western Society of the Army of the Potomac at its twenty-fifth annual meeting, April 30.

Dr. Antonio Lagorio has been elected chairman of the board of directors of the Chicago Public Library.

Dr. Halford J. Morlan has been made professor of diseases of the eye, ear, nose and throat in the Illinois Post-Graduate Medical School.

The cornerstone of the Mothers' Aid Pavilion of the Chicago Lying-In Hospital was laid April 20. Addresses were made by Dean Sumner and Rabbi Hirsch. This building will be the first of the three buildings to comprise the complete Chicago Lying-In Hospital.

Higher Entrance Requirements.—At the annual meeting of the board of trustees of the University of Illinois, March 11, it was voted that for students entering in September, 1913, the requirements for admission to the College of Medicine (formerly the College of Physicians and Surgeons of Chicago) be raised to at least one year of collegiate work in addition to fifteen units of common and high school work, and that for students entering September, 1914, the minimum requirement further be increased to two years of collegiate work in some college or university of recognized standing.

Eligible List for County Hospital.—As the result of examination for positions on the attending staff of the county hospital, the following applicants have been certified as eligible: Department of surgery, Drs. Allen B. Kanavel, E. Wyllys Andrews, Charles Davison, George F. Thompson, Harry M. Richter, Paul F. Morf, Frederick A. Besley, Charles J. Rowan, Lawrence Ryan, William R. Cubbin, Kellogg Speed, Frederick G. Dyas, Dean D. Lewis, John A. Wolfer, George de Tarnowsky, Paul Oliver, Charles A. Parker, George N. Pratt, Frank E. Pierce, Nelson M. Perry, Victor L. Schrager, Floyd B. Riley, Charles F. Yerger, Alfred J. Willits, Roger T. Vaughan, Dallas B. Phemister, William Fuller and Ernest C. Riebel. Department of Pathology, Drs. E. R. Le Count, Harry G. Weller, Maximilian J. Herzog. Department of ear, nose and throat, Drs. Stanton A. Friedberg, George W. Boot, Evanston. Joseph C. Beck, Robert Sonnenschein and Alfred Lewy. Department of medicine, Drs. Joseph A. Capps, Charles S. Williamson, Theodore Ticken, Milton M. Portis, Ludwig M. Loeb, Joseph L. Miller, William J. Butler, Frederick Tice, Ernest E. Irons, Joseph M. Patton, Ellis K. Kerr, Oak Park; Leon Bloch, Roger T. Vaughan, Walter W. Hamburger, Wilber E. Post, Samuel R. Slaymaker and Karl K. Koessler.

Named as Efficiency Expert.—"President McCormick of the county board announced yesterday the appointment of John A. Hornsby, former superintendent of the Michael Reese Hospital, as hospital efficiency expert on the new county hospital building job. Mr. Hornsby will confer with and advise the board of commissioners and county architect on all steps in the construction of the \$2,500,000 structure. Superintendent of Public Service Kenyon yesterday characterized the Hornsby appointment as one of the wisest moves made by the McCormick administration."—The Record-Herald.

Testimonial Banquet to Dr. E. Fletcher Ingals.—On Monday, April 28, a testimonial banquet was given at the Chicago Athletic Association to E. Fletcher Ingals, M. D., in appreciation of his forty-two years of service to the medical profession, to the science of laryngology, and to Rush Medical College. There were eighty-two guests present, Dr. Frank Billings presiding. The program included the following speakers: President Harry Pratt Judson, for the University; Judge Frederick A. Smith, for the Board of Trustees; Dr. E. L. Shurly, Detroit, Mich., for Laryngology; Dr. Norman Bridge, for the Faculty; Dr. O. T. Freer, for the Department. Prof. Judson was unavoidably absent from the city and his place on the program was taken by Prof. John M. Coulter, of the Uni-

versity of Chicago. Dr. John M. Dodson made the speech of presentation in giving Dr. Ingals a loving cup, inscribed as follows: "To Dr. E. Fletcher Ingals, from the Faculty of Rush Medical College, in appreciation of his invaluable service to the College and of their high regard for him as physician, teacher, counselor and friend."

Many messages of congratulation were received. The following telegram from Dr. D. Bryson Delavan, the distinguished laryngologist of New York, was read: "My Dear Ingals: Greetings to you as foremost active laryngologist in America. My ardent admiration for you as physician, scientist and man, and warmest affection as friend. Earnest congratulations upon what you have accomplished and are doing, and heartiest wishes for your happy future. May you long remain the trusted guide and cherished friend of us all."

Chicago and Philadelphia Societies Have Joint Meeting.—The Obstetrical Society of Philadelphia and the Chicago Gynecological Society held a joint meeting in the College of Physicians Building, Philadelphia, on May 9th. The program included papers on "Appendicitis Complicating Pregnancy," by Dr. Charles E. Paddock of Chicago; "Treatment of Uterine Fibroids Complicating Pregnancy and Labor," by Dr. Frank Lynch of Chicago, and "Treatment of Ovarian Neoplasms Complicating Pregnancy and Labor," by Dr. Richard C. Norris of Philadelphia. Among the Chicago physicians who took part in the discussions were Dr. T. J. Watkins and Dr. N. S. Heaney.

United States Civil Service Examination.—The United States Civil Service Commission invites attention to the fact that among the vacancies to be filled as a result of the open competitive examination for physician, for men only, to be held on June 4, 1913, it is expected to fill one in this position at \$150 a month, for service in the Insane Asylum at Ancon, Canal Zone, for which an unmarried man is desired.

The Isthmian Canal Commission states that the appointee to the position mentioned above must be experienced in the treatment of the insane, and that one without this experience can not be used.

Issued May 5, 1913.

Removal Notice.—Rebman Company wish to announce the removal of their offices to the Herald Square Building, 141-145 West 36th St., New York City. Telephone 619 Greeley.

New Charity Launched.—Articles of incorporation of the Sarah Hackett Stevenson Memorial Lodging-house for Women and Children have been filed with the county treasurer. It is to be located at 3040 Calumet avenue.

The lodging-house will be conducted under the auspices of the women's clubs of Cook County by a board of directors elected annually. Its object is not pecuniary profit, but the provision of shelter for women and children in need of temporary aid and assistance in finding employment or placing them in such institutions as their necessities may require.

The directors for the first year are Julia Booth Dickinson, Harriet L. Blakeslee, Anna M. Warren, Jessie B. Hall, Flora Gill, Mary J. R.

Tyler, Laura H. Clark, Ella E. Hill; Mrs. William Doun, Lucy Waite and Charlotte A. Mills.

Alienists and Neurologists Will Meet in Chicago.—A meeting of the alienists and neurologists of the United States will be held in Chicago June 24-27, 1913, the week following the meeting of the American Medical Association at Minneapolis. This meeting is the outcome of a similar meeting held last year. Further details may be obtained from Dr. Harold N. Moyer, chairman, or Dr. W. T. Mefford, secretary of the committee, to arrange for this meeting.

A Society for the Advancement of Clinical Study has recently been organized in New York City, the purpose of which is to maintain a bureau of information which will furnish to resident and visiting physicians definite information regarding the clinical facilities of the hospitals and laboratories of the greater city. For this purpose a bulletin board has been installed at the Academy of Medicine, 19 West Forty-third street, in charge of a special clerk who will be on duty between the hours of nine and six to answer all telephone inquiries (Telephone 974 Bryant). The bulletin board will consist of two sections, on one of which will be posted month by month, the regular clinics, medical and surgical, and also laboratory demonstrations, all of which are held at stated hours. The second section will include full announcements of daily operations and demonstrations of cases, both medical and surgical, which, as far as possible, will be announced on the day preceding their performance. It is believed that these facilities will afford physicians who are interested in observing particular operations and operators or clinicians, an opportunity to obtain the desired end with the least trouble. It is hoped that by this means the large and unexcelled clinical facilities of New York City will be made more accessible to those who may desire to make use of them.

New Medical Director for the North Shore Health Resort.—The board of directors of the North Shore Health Resort have announced the appointment of Dr. Fred C. Kovats as medical director of that institution, taking effect May 1, 1913. Dr. Kovats, a graduate of Rush Medical College in 1900, has been a specialty of heart, stomach and nervous diseases. He has been connected with some of the best institutions in this country and has been associated with the ablest specialists in the various departments of medical and surgical practice for thirteen years, of which about one year was spent abroad in study. Dr. Kovats made it a special point to visit the foremost European sanitariums and to select from each the most approved methods of treatment.

A Good Catalogue of Medical Books.—W. B. Saunders Company, publishers of Philadelphia and London, have issued another edition (17th) of their handsome illustrated catalogue.

In going through this edition we find it describes nine new books and ten new editions, not described in the previous issue. These new books are of great interest to the medical men, because they treat of subjects being daily discussed in medical circles.

Any physician can get a copy of the Saunders' catalogue by dropping

a line to these publishers. A copy should have a place on the desk of every physician, because it is most valuable as a reference work of modern medical literature. Send to Saunders today for a copy.

An Ideal Health Resort Near Chicago.—Dr. Carl Struch's Health Resort at McHenry, Ill. (see our advertising pages), has been opened for the summer with elaborate preparations and new arrangements.

A new treatment house, another sun bath, a clubhouse, lecture hall and several new cottages have been added to the already numerous buildings.

The institution is located in the picturesque Fox River Valley, the most beautiful section of the State of Illinois.

Dr. Struch's Health Resort is one of the few institutions in the Middle West which are devoted to the rational treatment of diseases by physiologic therapeutics (outdoor life, dietetics, hydrotherapy, mechanotherapy, rest cure, etc.), and an ideal place for convalescents and others to rest and recuperate.

McHenry is only one hour's ride from Chicago, on the Chicago and Northwestern Railway, and also easily accessible by automobile from all directions.

Physicians sending patients or convalescents have an opportunity to keep them under their personal care and are consequently assured that instructions as to diet, treatments and general regimé are conscientiously followed out.

Special rates are offered to physicians and their families. A beautifully illustrated and descriptive booklet will be mailed upon request.

The Schwarzwaldschule.—This up-to-date educational establishment for boys and girls under medical supervision will be opened on October 15, 1913. The school will be conducted by Dr. Wachsner as head master. He has enjoyed special professional training in pedagogy, and has hitherto been engaged in teaching in secondary schools, which in Germany are under the direct control of the state.

The medical supervision will be in the hands of the medical superintendent of the Friedrichshaus, an institution under the patronage of H. R. H. the dowager Grand Duchess Luise of Baden.

The curriculum embraces all the usual school subjects, including the dead languages and music up to the standard of the "Untersecunda" in a "Gymnasium" (corresponding more or less to the lower fifth on the classical side of a public school). But in all cases the instruction is regulated in accordance with the capacity of the pupil and the wishes of the parents, especially in the case of weakly children or of foreign pupils, who have not yet mastered the German language.

Healthy children, those in need of recuperation and sickly children are received as pupils; the latter, however, only as far as there is no reason to fear that their special symptoms should injuriously affect their fellow pupils. Under no circumstances can pupils be received who are suffering from infectious diseases and this especially applies to children who are obviously consumptive. For those who need to be hardened or to undergo a course of medical treatment, all the curative appliances of

the "Hotel and Kurhaus" are available in summer, and those of the "Luisenheim" in winter (hydropathic treatment, Swedish gymnastics, sun baths, etc.).

If a pupil should fall ill, all the necessary appliances for diagnosis and treatment are at hand. Fully qualified nurses are always available. Special attention is given to the food; if the doctor so directs, a prescribed diet can be given temporarily or permanently.

Among the provisions made for the health of the pupils, including those not in need of medical treatment, we may mention the air and sun baths in the woods, the tennis courts, and in winter the skating rink and the toboggan-run provided by the "Kurverein," in addition to skiing. Walks under the supervision of a master are taken daily, and at least once a week the pupils go for a long walk in the neighboring mountains.

The widespread renown of St. Blasien as an international health resort is due to its moderate height (2,600 feet above the sea), to its position, sheltered from the wind by mountains and immense woods, and to the abundance of sunshine, especially in winter. For details we refer to the prospectuses of the "Hotel and Kurhaus" and of the sanatorium "Luisenheim." For children more than others, the medium elevation appears particularly suitable: for, on the one hand, St. Blasien offers almost the same advantages as the more elevated health resorts, e. g., those of the Engadine, while, on the other, the children can more easily adapt themselves to the climate, on account of the height being only the moderate one of 2,600 feet. And especially the return to the climate of their homes after a long stay in St. Blasien is on this account not so trying as it would be, if they had accustomed themselves to the peculiar conditions of a mountain resort of great elevation.

The fees for healthy pupils, including instruction, amount to 250 marks (£12.10—\$62.50) a month. Pupils who require a separate bedroom pay 30 marks extra. Music lessons are extra. On the other hand, the use of the tennis courts, rinks, etc., of the air and sun baths and of the hydropathic treatment, as also the continuous supervision of the medical superintendent as included in the sum mentioned. For special items, such as permanent special diet, massage or drugs, a moderate charge is made not surpassing the cost price, as also for medical attendance in case of illness. As the statutes of the institution do not allow a profit to be made, the above terms might be reduced in special cases.

We especially direct the attention of parents to the fact that the hotels to be found in St. Blasien enable them to visit their children or to reside permanently in their neighborhood.

The Schwarzwaldschule is closed for the midsummer holidays during July and August, but suitable board and lodging can be provided for the children during these months also, either with a mistress or in one of the larger institutions of St. Blasien.

Applications should be addressed to Dr. Wachsner in St. Blasien, principal of the Schwarzwaldschule, at as early a date as possible, as the number of pupils is for the present to be restricted to 25.

Real Rest from Professional Labors.—What is most sought for by

those who can afford a real vacation tour is one that combines rest with recreation.

Yellowstone Park offers more than any of our national playgrounds that is of interest to the studious and the lover of the beautiful in nature, and yet the trip through the park is made much too hurriedly by more than ninety per cent of its visitors, who fail to see some of the chief attractions.

Characteristic of the hurrying American he is attracted by the offers of the railroad companies, and most of the tourist companies, to "complete the circuit" from the park border in from three to six days or make the entire tour from Chicago in from eight to eleven days, occasionally including Colorado and extending the time to two weeks. Such tours necessitate travel either by rail or stage every day, which, instead of affording rest to the vacationist, lands him at home more worn out than before starting.

There are five stopping places in the Yellowstone Park trip, and you can readily see how little time there is left for sight seeing, to say nothing of rest, at these places, when, on a trip of not more than five days one has to rise very early every morning, pack his hand baggage before breakfast and climb into a stage for a drive of from 17 to 45 miles.

Out of twenty-four hours this hardly leaves time enough to begin a real enjoyment of the attractiveness and comfort of such places as Old Faithful Inn, known as the most unique hotel in the world, built entirely of logs and accommodating hundreds of guests; or the New Canon Hotel, costing nearly a million dollars, nearly a mile walk around its outside walls, and its interior—well, you will have to see it to appreciate it, or lose yourself in its great lounge, 75 feet wide by 150 feet long, and you will not be easily found unless you wish to be, and leave a call at the office. In the vicinity of either of these two hotels one might easily spend a week and see new wonders every day, for in the geyser basin, some two miles long by three-fourths of a mile wide at Old Faithful, there are over six hundred geysers, pools and boiling springs. At the Canyon there are scenic beauties to be found nowhere else in the world, and the traveler always leaves reluctantly.

Then at Mammoth Hot Springs there are natural phenomena entirely different from the wonders at other points in the park.

All five of the hotels are comfortable, the service good, and the fare exceptionally fine, especially when you consider that all supplies are hauled in by wagon train from the park entrances. Many popular resort hotels directly on the railroad in other parts of the country are not near so good.

So why not stay an extra day at each hotel, sleep late every other morning if you wish, and take a side trip to some point of interest not enjoyed by the average park tourist. Spend, say, nine to twelve days there, and make a thorough yet restful tour of the wonderful Yellowstone Park. It is a tour that every one wants to make once anyway, and why not make it complete.

A number of years ago there was established by Mr. Reau Camp-

bell, the manager of The American Tourist Association, a concern which now bears his name, regular tours to Yellowstone, spending double time in the park, an extra day at each hotel, and including all the side trips and also the boat trip across Lake Yellowstone, next to the highest navigable body of water in the world. The climax feature of these tours is the ascent of Mount Washburn, 10,300 feet, a side trip which can not be made on the ordinary five or five and a half days' tour of the park.

Special chartered stages are reserved for the exclusive use of guests on these tours and remain at each stop-over at the different hotels and provide the side trips. The ticket for one of these tours covers absolutely all expenses from Chicago back to Chicago, lower berth in standard Pullman sleeper, meals in dining cars, and during stop-overs en route all hotel expense and carriage or automobile drives.

There will be six of these tours to Yellowstone, varying in length from 15 to 20 days, and two to Glacier National Park, during the coming summer season under the direction of The Rean Campbell Tours, 1214-15 Westminster Building, Chicago.

Bonds Versus Real Estate Mortgages.—The question of the desirability of municipal railroad and corporation bonds as compared with real estate mortgages is one about which there has been a great deal of discussion and is one that is of interest to many individual investors, as well as bank officers, insurance companies and trustees and executors of estates. There are, of course, many good arguments on both sides of this question, but it is the writer's intention to give in a brief space here the principal attributes of these two classes of investment security, with which we are all, of course, familiar, and by comparison point out the advantages which securities of the first class possess over those of the second. It is well understood that the essentials of the desirable investment security are, 1st, safety of principal; 2d, satisfactory interest returns; 3d, convertibility; so let us see which of these two classes fulfill all of these requirements in the most marked degree.

It cannot be denied that a legally executed first mortgage on either improved farm land or city real estate of sufficient value, when issued by a responsible borrower, is as far as safety of principal is concerned, one of the best types of investment. Let us assume that the purchaser of a mortgage secures it from a bank or a firm which has thoroughly investigated the security and which has had its lawyers pass upon the title and execution of the mortgage, etc., and which has invested its own funds in it.

In comparing these two forms of investment it is necessary for the investor to bear in mind, that, regardless of how strong the security may be, he will have to depend upon the earning capacity of the person issuing the mortgage, the railroad company or corporation issuing the bonds, or on the taxing power of the Municipality, in the case of Municipal Bonds, for its payment at maturity and interest when due. As a large number of mortgages are made by persons of limited earning capacity it often develops that they find it hard to meet their interest payments promptly and even harder to set aside funds from time to

time as a sinking fund to pay off the principal when it matures; as a result very often the investor is requested and almost compelled to renew the mortgage when it falls due, unless, of course, he wishes to foreclose on the property which is the security for his money. Then a default is made and the holder of the mortgage finds it necessary to go to the expense of starting suit to foreclose on the property. It takes about two years, on an average, from the time such default occurs for him to get possession and title to it. Not only is such a procedure often attended with unpleasantness, but when the investor forecloses and finally takes over the property in satisfaction of his mortgage he becomes a holder of, or speculator in, real estate and is no longer an investor, as far as that transaction is concerned.

It is, of course, a well-known fact that our national banks are prohibited by law from investing their customers' deposits in real estate mortgages, and the reason for this law is, not that they are not considered a good security, but because they are not as readily convertible as securities held by national banks should be. While there is always a local market for real estate mortgages, except in times of panic, there is very little if any market outside of the city or locality in which they originate, which, of course, means that the market for them is a very limited one. As for example, in times of stringency it would be extremely hard if not impossible for an owner of a Chicago mortgage to sell it in New York or any other city, if he could not sell it at a satisfactory price in Chicago; if he wished to dispose of the mortgage on property in a smaller city, it would be much harder for him to do so; the smaller the city the harder it would be for him to find a market for it. In fact, the writer understands that none of our banks here will buy a real estate mortgage without first sending out one of their appraisers to value the property in question, unless, of course, he has purchased it from that bank, or unless it is backed by a guarantee policy.

Not only do real estate mortgages have a limited market for their sale, but as a result they do not constitute ideal collateral; while as an asset they are undoubtedly safe, as a marketable security in times of financial stress they become unavailable.

Another disadvantage in connection with the purchase of real estate mortgages is the fact that they are usually made for short periods, the average being about five years, and very often a borrower has the privilege of paying off all or any part of his mortgage before it is due, which makes it necessary for the investor to look around for another investment ever so often, whenever all or any part of his mortgage is paid off, and select one he believes to be safe and that will net him the desired interest returns. Not only does he experience this inconvenience and possible loss of interest, but on account of the ever increasing gold production and for various other reasons, interest rates are continually changing, and as these interest rates have for a number of years steadily declined, the investor each time he makes a new investment faces the possibility of having to accept a smaller and smaller return on his investment. Periods of dull business accompanied with a lack of demand for money with consequent low interest rates are bound to come from time to time, but if the investor has his funds in long time bonds, which bear

PIDS
JUN 11 1913

THE CHICAGO MEDICAL RECORDER

JUNE, 1913.

Original Articles.

ANEMIA FROM THE STANDPOINT OF THE OPERATING SURGEON.*

BY HENRY T. BYFORD, M. D., CHICAGO.

For our purpose it is convenient to divide cases of anemia into two types, those of anemia with compensation and those without compensation.

In cases of anemia with compensation the patient's functions have so far compensated for the anemia that he may be treated up to a certain point as a normal individual.

One of the most striking characteristics of compensated anemia is that when the cause has been removed tonics and nourishing food do not promptly relieve it. An anemic habit has been established, which of course means that the conditions have become chronic. It is usually developed gradually, as for instance in a case of metrorrhagia in which the recuperation each month is nearly but not quite complete, and in which an adjustment of function keeps pace with the progress of the anemia. In a case however in which the blood deterioration has been a rapid one, it must have existed long enough for an adjustment of function to have occurred. Compensation requires time to come as well as to go.

Cases of anemia at the menopause often partake of this kind. Causes working before the menopause have established the anemic habit, but the anemia does not yield to treatment after the menopause as readily as is usually expected. The functions have adapted them-

*Abstracted from a paper on "The Significance of Anemia as an Operating Risk," read before the American Gynecological Society, May 8, 1913.

selves to a certain degree of anemia and do not seem to call for better blood.

The anemia of old age is a compensated anemia. A full percentage of hemoglobin and erythrocytes is, as a rule, unnecessary in old people and probably undesirable.

Another characteristic of the compensated form is the comfort and vigor with which the duties of a moderately active life are performed. Irritability, languor or physical exhaustion are not observed except after unusual trials of endurance.

Emaciation is seldom noticeable unless the patient is of the lean kind or has been sickly in his youth. Women sometimes retain quite an abundance of fat, and seem to be benefited by it. I have a fleshy patient who is doing her own housework and says she feels well. Yet her hemoglobin is 52% and her erythrocyte count 4,072,000.

Good muscular development is one of the most important factors of compensation, since the muscles develop and store energy which may be utilized not only in muscular action, but in other functions. Hence a life that develops muscle, rather than one of physical inactivity, is necessary for the welfare of such cases.

The blood pressure is usually about normal, or may be slightly above normal for the blood picture. The pulse is seldom noticeably accelerated excepting during active physical exercise.

The urine may show a subnormal excretion of urea, but otherwise is subject to ordinary variations.

They take anesthetics about the same as those who are not anemic and stand operative procedures well.

Anemia without compensation includes those cases in which an adjustment of function has not taken place sufficiently for the performance of the ordinary duties of an active life with comfort and efficiency. They are more important, surgically considered, than the compensated because they are poor operative risks and are as apt to surprise the operator by bad results as the others surprise him by good results.

Anemia is usually uncompensated when complicated by chronic sepsis, and the fact that a case of anemia is not compensated should lead us, in the absence of an apparent cause, to suspect a concealed septic focus.

Anemic patients who are bedridden from either functional or organic disease are seldom compensated and must be put through some form of exercise that will develop muscle and bring up the blood pressure before compensation can be developed.

Those who are decidedly anemic in connection with excessive childbearing, habitual loss of sleep, mental distress, anxiety, drug habit, unwholesome food and other hygienic or abnormal influences are seldom compensated. They are ordinarily considerably under weight and show their physical depression and mental distress in their looks. The pulse is rapid, the blood pressure low and the temperature often subnormal. They become nervous and depressed without adequate cause. They are using up energy faster than they can create it. The Weir Mitchell treatment, followed up by regulated exercise and diet, gives good results.

Convalescents from severe attacks of sickness who are anemic do not become good surgical risks as soon as the infection or prostration has disappeared. Time must be given either for the establishment of compensation or recovery from the anemia. The ability to take an abundance of physical exercise without exhaustion is a good test.

It is needless to say that the anemia associated with advanced malignant disease, exophthalmos, tuberculosis, parasitic blood diseases, arterio-sclerosis, nephritis, sclerosis of the liver and other chronic diseases is usually uncompensated and the patient's resisting powers comparatively feeble.

With regard to the degree of anemia I think there is a tendency to underestimate the influence of a moderate reduction in the number of erythrocytes and pay attention only to the percentage of hemoglobin. The compensated cases usually have an erythrocyte count of 4,000,000 or over, and with such a count compensation often takes place with a hemoglobin percentage as low as 60 and sometimes lower.

In uncompensated cases the ordinary tonic and dietetic treatment is apt to give good results, but in compensated cases we cannot, on account of the anemic habit, produce quick changes and our aim should be to place the patient under ideal hygienic conditions, particularly with regard to diet, sleep, exercise and fresh air, and be satisfied with gradual changes.

As a general rule we might say that patients who have been anemic long enough to acquire the anemic habit, who have a normal or rather high blood pressure, an erythrocyte count above 4,000,000, who are leading a physically active life without great discomfort, and who are not noticeably emaciated, have greater endurance and make much better operative risks than the degree of anemia considered alone would indicate. On the contrary, anemic patients with a low blood pressure, an erythrocyte count less than 4,000,000, and marked emaciation, who are unable to take a considerable amount of daily active physical exer-

cise with comfort and without complaint, or who are bed-ridden and mentally hyperesthetic or depressed, often make much poorer risks than the degree of anemia alone would lead us to suspect. Anemic patients presenting one or more of these characteristics should be studied with reference to the hygienic conditions of their immediate past and the pathological changes present. Starvation, hemorrhage, loss of rest, erroneous ideas or injurious habits with regard to work or indulgences or social duties, chronic or recent septic infection, incipient or chronic disease of any kind, should be looked for.

In other words, the surgeon should not operate, except in emergency cases, upon an anemic patient until he has gone over the case history, the symptoms and the functions of the organs in a searching manner. He should give to each case time enough for this whether it takes an hour, a week, or a month. I am often surprised to see the haste with which some operators get their patients on the operating table and in some cases have not been surprised to see the results.

122 South Michigan Avenue.

NOTES ON THE TECHNIQUE OF USING THORIUM PASTE.

By L. DUNCAN BULKLEY, A. M., M. D.

Physician to the New York Skin and Cancer Hospital, Consulting Physician to the New York Hospital, etc.

So many inquiries have been made in regard to the exact method of using the "thorium paste," which I advocated some time ago,* together with its dilutions in a two per cent. watery solution, and ten per cent. ointment, that it seems best, after further experience for over two years, to write again on the subject, in the endeavor to make the technique of its employment more clear. It is now nearly three years since the first trial of it was made at the New York Skin and Cancer Hospital, under the directions of the originator, Mr. Semerak, since which time nearly three hundred patients have been thus treated there and in my office, and the results observed by very many practitioners. Dozens of physicians, surgeons and dermatologists have seemed to grasp the technique, as originally described, and have personally reported large numbers of cases where there were most gratifying results.

But, on the other hand, I am now and again learning of unsuccessful results, and occasionally of injury, from the injudicious use of the paste, which is only what might be expected with a new remedy; even as a delicate surgical operation may be bungled, the best prescription may be misused, and the X-ray, when wrongly employed may do harm to many, in spite of its invaluable service in a very much larger proportion of instances. Thus, I have learned of one physician who gave the paste to a patient with cancer of the breast, with directions to rub in over the surface, with, of course, disastrous consequences. Also of another who had it so applied to some lesions on the buttocks that an ugly inflammation was set up, which my informant had treated as a "Thoremadin burn."

In the use of any new remedy there should certainly be the utmost care given to understanding its character and action, and even then there may still be errors of judgment, from want of experience and hasty or imperfect appreciation of the directions given, which should in no wise be charged to the remedy itself when it has been proved to be effective in other hands.

In regard to the Semerak Thorium paste, it had been used successfully in various clinics and on private patients in Europe for seven years when it was brought to my attention with the highest

*Medical Record. April 22, 1911.

recommendation from a number of well-known and accomplished dermatologists abroad. I studied carefully a mass of autograph letters and many photographs taken before and after treatment, and then obtained permission to have it applied by the originator on certain cases in the New York Skin and Cancer Hospital, under my personal supervision. I soon saw some remarkable results, especially in epithelioma and in lupus vulgaris and erythematosus, and I then demonstrated its application repeatedly to the practicing physicians who came to my lectures at the hospital.

After some months of this trial in the hospital and in my office I reported the results, as already mentioned, giving the ingredients of the paste, as furnished to me at the time by Mr. Semerak, but without the exact proportions of each ingredient, the supply then being obtained from Paris: the formula now furnished with each package is as follows, Lead sulphate 68.6, Thorium sulphate 1.5, Didimium sulphate .25, Sulphuric acid (U. S. P.) 27.6, Nitric acid, trace, Hydrochloric acid, trace, and Moisture by difference 2.05.

It is seen, of course, that in full strength this may act as an escharotic, as indicated on the slip accompanying each package of the paste; but practical experience with it now for nearly three years has shown me that if used judiciously there is never a caustic action which needs to be regretted, and personally I have never seen it act more deeply than desired. Indeed, whatever destructive power it has on diseased tissue, has generally been too light, and repeated applications are often necessary to reduce a morbid growth of any size, as will be detailed later.

In regard to what has been said in criticism of its composition and action, it is perhaps unnecessary to say much more than I have already expressed elsewhere: namely, that while the amount of Thorium is very small, I cannot believe from my experience of the manner in which it operates, that this is a negligible element: for, by its prolonged action (the paste being left on for a week or two, or perhaps repeatedly for months), there is certainly an influence for good which cannot be accounted for by the sulphuric acid or other ingredients. Moreover, the final effect of the remedy, in regard to the character of the ultimately resulting state of the skin (for often there is practically no scar) is so very much like that produced by radium and X-ray, that there seems no doubt but that the thorium contributes an important element to the result: we as yet know very little about the mysteries of radio activity.

But after all may it not be that the peculiar combination of the

ingredients of the paste account for its beneficial action, even as is continually seen elsewhere in medicine: thus, the results obtained from a proper use of Dover's powder might not at first be expected from its component parts, and salvarsan is a striking example of a remedy worked out to accomplish a special purpose: a priori who would expect that the ingredients of gunpowder would produce such a substance and such effect when combined?

The technique, however, is a matter which requires some little thought, as well as an appreciation of its composition and a knowledge of the diseased tissue to be treated, as is true, of course, of any other remedy. It may be stated at the outset that practice and experience with it will yield better and better results, even as is the case in regard to the use of the surgeon's knife, the X-ray, the violin, and the piano. While I have personally seen no harm from its use in my own hands, or even in the hands of others, I would not advise every one to seize upon it as a cure-all, or to attempt to use the remedies thoughtlessly, without carefully studying what has been written about them: and then I would advise one to proceed cautiously, watching the action carefully and advancing step by step, as results are seen to follow.

First, then, it must be clearly understood that the remedy in question is not a cure-all, but has distinct and limited powers; although I am not prepared to say just what are the limits of its usefulness, as my experience has been mostly confined to what will be presently stated. I have, however, heard from a reputable and intelligent physician, who in despair employed the ointment in a case of chronic eczema of the hands, of many years' standing, with a complete clearing up of the eruption. Also of cases of acne, where touching the inflamed points lightly with the paste caused them to subside. I have never treated either of these affections with the remedy, but I have applied the paste to boils and carbuncles, when the latter had not far advanced, and have seen them subside in a manner which was surprising, and, in my experience and that of intelligent office patients, quite different from that observed by them and myself under any other treatment.

But it is essentially in neoplastic and hypertrophic growths that the action of the remedy shows its remarkable powers, and it is in regard to the use of the thorium paste and its preparations in epithelioma and in lupus vulgaris and erythematosus that it is particularly desirable to proceed with the best technique.

It may first be remarked that an accurate diagnosis is very

necessary, for on a number of occasions I have known of late syphilitic lesions being mistaken for those under consideration, and the applications have not only failed in their results but have even done harm, by delaying the employment of proper medication.

Epithelioma. The forms and phases of this disease in its different stages vary so greatly that no satisfactory general statement can be briefly made in regard to the use of the remedies in question, and reference must be made to individual conditions.

In small, non-ulcerated epithelioma, perhaps up to an inch in diameter, the paste may be applied at once, with a glass rod in quite a thick layer, and left to dry on: the drying may be hastened by dusting on a little chemically pure talcum powder. When there is danger of friction this can be again covered after it is entirely dry, with a very thin layer of absorbent cotton, fastened on lightly with adhesive strips; but on exposed parts it is better not to cover it. The application is left undisturbed for a week or ten days, or more, it forming a rather hard, adherent crust. It is often quite as well to leave it all alone until the crust falls spontaneously, when in rare cases of a small lesion, a single application will be sufficient to have so altered the tissues that the skin appears normal, or almost so, with even less sign of a scar than is seen after the X-ray; but after from five to ten days, if the crust is still firmly adherent, it is quite as well to soak the surface with olive oil, applied several times daily, until it is easily removed. While it is possible for a single application to apparently cure a small lesion, several applications of the paste will commonly be necessary, and after the fall of each crust the lesion will be found to have lessened, and finally the same condition mentioned above is obtained. Should there be any suppuration beneath the crust, it is well to soften it earlier with the oil, and to remove it gently, and treat the surface as will be described later for raw surfaces.

Epitheliomata which are more advanced, and which perhaps have been submitted to various other treatments previously, will often require repeated applications of the paste, prolonged even over some months; but with persistent treatment the steady progress towards a cure establishes the value of the method advocated, as in the following cases in private practice.

O. M., aged 60, had first a lump form over the right malar prominence ten years previous to his first visit. This gradually increased in size and ulcerated and was removed surgically five years after it appeared, with good result at the time; but about three years

later it again developed in the scar, and increased in size until seen, in spite of various treatments, including X-rays twice a week for four months. When he first came for treatment there was a characteristic ulcerating mass, irregular in shape, an inch and a half in diameter in several directions, just below the right malar prominence, with hard edges seemingly raised a quarter of an inch or more, the ulceration extending beneath the zygoma, and bleeding easily. A two per cent. watery solution of the paste was given, to be kept on with compresses all the time, and in one week the surface was in much better condition, cleaner, and the discharge of pus had ceased. He was then given a ten per cent. ointment to be kept applied on absorbent cotton in the day time, and the lotion at night. One week later the depressed area was decidedly less, and the edges less prominent. The pure paste was then freely applied to the hard edge, and the cotton soaked in the liquid kept in the cavity. In four weeks from the first treatment the pain, which had previously been severe, had entirely ceased, and the cavity had considerably filled up. From that time to the present, some eight months, he has been seen about every two weeks, with repeated applications of the pure paste to the edges, and sometimes lightly brushed over the entire surface, with also more or less use of the lotion and ointment.

While the sore is not yet healed, the change in the diseased area is certainly remarkable. The hardened edge on the anterior border has entirely disappeared, the normal skin running down to some raw surface still left near the zygoma: the posterior edge is still somewhat hard but relatively little elevated, and at each visit there is some evidence of gain. Thus, in this desperate case there is prospect of a complete healing, after all other measures had failed.

Another quite similar case, but more severe, in a man, A. C. R., aged 63, has also been under this treatment for nearly a year. Here the trouble began in front of the right ear ten or twelve years previously, and increased to the time of his visit in spite of various treatments, including a caustic paste, and repeated series of X-ray exposures, once for nearly a year, twice a week. When first seen there was an ulcerating area a good deal over an inch in size in front of the right ear and extending deep into the auditory canal, and having also destroyed part of the external ear. Much the same method of treatment was employed, with repeated applications of the paste to the hard edges, and latterly even lightly to the canal, with the occasional use of the lotion and ointment. The progress of this case had been much as in the other; some of the edges have melted away, and also much of the

ulcerated area has healed, including even some in the auditory canal. Since this was written he has remained away six months, with home use of the remedies, and while there has been some increase of the ulcerated surface the disease has been held in check.

These two quite inoperable cases, representing also a number of other similar ones which had been resistant to all other treatment, are purposely mentioned, although not cured, instead of the many less severe, cured cases, in order to illustrate the steady progress which can be made with this treatment, when patiently and intelligently carried out: for not only has there not been an increase in the affected area, but a continued diminution and progress toward cure has taken place, with an astonishing disappearance of portions of the well-known hardened edges of epithelioma, and a gradual replacement of almost normal skin. In both these cases, as also in many others, there have been repeated applications of the paste, in full strength, which has sometimes adhered for one or two weeks: and although I constantly paint it for a quarter of an inch or more beyond the actual crater-like edge of the sore, so as to compass the whole disease, I have never seen it produce active ulceration, but only absorption of the diseased tissue. I cannot, therefore, at all understand the fears as to its escharotic action which have been engendered by an earlier criticism, based on laboratory studies, without clinical experience in a single case.

There are some points in connection with the use of this plan of treatment in epithelioma which may perhaps be mentioned with advantage. Not only should the inexperienced undertake the treatment with caution, but in every case it is well to proceed cautiously, watching the effect of each application and increasing the severity of the treatment as indicated. In some instances where the surface is at all raw, it is well to make the first application of the paste washed out, or diluted one half, with distilled water, or to use the two per cent. watery solution for a while: and in applying wet dressings of the solution to a raw, pus-discharging and inflamed area the effect is often far better when this latter is even further diluted, with two, four, or even eight or ten times the amount of pure water.

It is also wise, as a rule, not to apply the paste to large surfaces at once, expecting to effect a rapid cure. The crusts which form are apt to adhere, with pus formation beneath, and instead of leaving a healthy surface when removed, there will be one which is raw and slow to heal, even with continued treatment, and there will also be more likelihood of a keloidal scar resulting; while applications over

small areas cause more rapid healing and leave an æsthetic scar. When there is a very thickened epitheliomatous growth it is sometimes well to make applications two or three days in succession, one on top of the other, till quite a mass is formed, which is then allowed to remain until it falls spontaneously. The beneficial results from this would certainly point to the radio-active properties of the paste, and not to its other ingredients, which could not penetrate the already dried crust. I have known the crust to adhere almost four weeks, with no moisture below, and the resulting scar, if it could be called such, was perfect.

When on lightly pressing the crust formed by the paste there is found any moisture, it is well to remove the covering very gently, even softening it first for a few days with olive oil, frequently applied, or soaking it with the solution somewhat diluted; when the crust is rudely torn off, as it sometimes may be accidentally, the surface is irritated, and if left untreated the disease will progress, but will again yield well to the correct application of the remedies. Also, if after there has seemed to be a cure of the disease there should appear new points at a later period, they will commonly yield to renewed treatment even more readily than did the first lesion.

The application of the paste, especially to a raw surface, always causes some pain of a burning character, but it is not excessive, passing away in an hour or so; in many hundreds of applications I have found it necessary to give a little codeia to only two patients, both very elderly women. In using the watery solution on raw surfaces there should not ordinarily be pain, indeed this is rather to be avoided and the lotion diluted, several times with boiled water, the strength being increased as the results may indicate.

In regard to the extent of disease which may be favorably influenced by the thorium paste, I would say from my experience that a very considerable area of relatively superficial epithelioma may be successfully treated piecemeal, beginning with the edges and closing down to the center, but it is not wise to make an application of over a square inch at one time. I am not prepared to say to what depth the disease may have advanced to be beyond the reach of this treatment, for successive applications will remove very considerable accumulated tissue. But I should not recommend its employment in deep seated carcinoma, as of the breast, and I should be very cautious as to thus treating Paget's disease about the nipple, which is so often accompanied with deep seated malignant breast disease; in the majority of these cases radical surgical interference, in the way of re-

moving the entire breast, is best. Mr. Semerak has, however, employed this treatment advantageously in connection with operative work by well-known surgeons, and there is perhaps an extended field of usefulness in that direction. I have not attempted this treatment in cancer of the lip, although Dr. Zeisler of Chicago has reported a cure by this treatment at the Dermatological Society; nor should I advocate it anywhere when there is accompanying glandular enlargement, without adequate surgical aid. Nor have I attempted to employ this remedy on malignant diseases of the mucous membranes, although the originator has repeatedly told me of remarkable results which have been obtained with these measures in the mouth and vagina, in connection with surgeons and gynaecologists, which will be shortly reported by them.

Although the X-ray has previously yielded most gratifying results in my hands in epithelioma, and I have reported rather enthusiastically upon it, the present treatment has so satisfactorily taken its place, in the same class of cases, and often with even better and more rapid results, that the former is now rarely employed in my office, while the latter is used almost daily; and on one certain day of the week, when the originator had assisted me for a year past, there were often many patients thus treated. I may refer to what I have previously written on the subject for some further details and illustrative cases.

Lupus Vulgaris. When there are only a few separate lesions, and not crusted, they may be treated at once with the paste, but the first application should be very slight, as each skin reacts differently; and in some individuals a small amount of the paste will produce the same effect as a very heavy application in others, and is less likely to leave an unpleasant scar. Each application should not extend over more than half a square inch in one place, in order to prevent the formation of too extensive a crust.

The course run by the application is much the same as in epithelioma, only as a rule the destruction or alteration of tissue is less deep and exfoliation takes place sooner; as each crust falls there is less and less of the lupus tissue seen, and after a few repetitions of the paste, in recent cases and small patches, the brownish areas are no longer visible with the diascop, and a smooth, hardly visible scar may result. When the crust formed by the paste has adhered a week or so it may be softened with repeated applications of wet dressings, one part of the liquid to 5 to 10 parts of boiled water, which will prevent suppuration or moisture beneath the crust; if there is any raw

surface left, it should then be touched several times a day with the 2 per cent. liquid preparation, until entirely dry, before applying the paste.

In old and extensive cases of lupus, where perhaps there has been much antecedent unsatisfactory treatment, the procedure will have to be varied according to the condition present. Adherent crusts should be gently removed, and if there is any raw surface it is treated as above indicated, with the liquid preparation diluted, sopped on half a dozen times daily; and at night the ointment, diluted with 25 p. c. each of olive oil and lanolin, may be gently rubbed in, or even laid over the part, thickly spread on a very thin layer of absorbent cotton. In some cases it is well to continue the wet applications for a week or more, before attempting to use the paste, especially if there is some inflammation.

When the surface has somewhat cleaned up, and crusts are no longer formed, the individual lesions at the margin, or even separate ones within a scarred area, may be treated with the paste, applied as in epithelioma; but care should be exercised not to attempt to treat too large an area at once, and it is well to make a number of smaller applications, separate from each other, allowing each crust to exfoliate before the adjoining tissue is attacked.

Lupus is a most stubborn disease, and it is well not to expect too rapid progress toward recovery, and many cases will require even greatly prolonged treatment. But as one layer after another is removed by the paste it is seen that there is less and less of the diseased tissue, when examined by pressure with the diascopé; and eventually there is a perfectly healed area, often with hardly any perceptible scar, unless it has already been produced by former treatment. But as all know, true lupus has a strong tendency to return either on old areas, or elsewhere, and cases should be kept under observation, and with the slightest indication of a new production of lupus tissue the treatment should be returned to at once; happily relapses yield equally well to careful treatment. When compared with measures which have heretofore been employed, and the disfiguring results often obtained, this treatment represents certainly a very great advance.

Lupus Erythematosus. This most rebellious eruption, which so commonly leaves a scar, can often be made to disappear without such by this treatment, as I have repeatedly witnessed. The method of use may vary considerably with the individual case, but in the main the technique is such as already described. It is well to begin with a repeated saturation of the affected area or areas with the liquid, ap-

plied several times a day even in full strength, if it does not sting much; together with this the ointment, diluted at first with one-half olive oil, is gently rubbed in, at night. Under this treatment the diseased areas are seen to lessen in redness, become soft, and sometimes may even disappear without more energetic measures.

But in most cases there will be need of the paste, lightly applied at first and left on, as in epithelioma, until it falls, being aided in a week or so with some light application of olive oil, or wet dressings of the solution, several times daily. In the treatment of many cases, as I have used it, I have never seen any undue or caustic action, or ulcerated surface, only a gradual thinning of the diseased tissue, as each light crust is shed, until a normal skin results; it may take many applications to effect this, and if it seems to be well borne the paste may be applied in an increased thickness, thereby getting a greater and greater effect from its radio-active powers. It is well, however, to begin cautiously, with a light application, the paste being even softened somewhat by dipping the loaded rod into a little of the liquid or washing it out in distilled water; it is also well to keep the surface under the influence of the remedy after very active treatment has ceased, by means of the diluted ointment gently rubbed in at night, and sopping twice daily with the liquid, diluted about one to six parts of water.

There are a number of other affections of the skin which may often be treated with the greatest advantage by the remedy under consideration, which may be briefly mentioned.

Xanthoma of the eyelids will yield to a few careful applications of the paste, the spots flattening and fading as each light crust falls, and normal tissue finally resulting; naturally some little caution must be used in making the applications near the eye, but I have never seen any inflammatory action, much less any ulceration produced by the remedy.

Pigmentary and *hairy moles* will often yield to a single application of the paste, though more commonly it will need to be repeated if there is much solidity to the lesion. It is especially desirable in these cases that very small areas should be taken at one time, in order to procure an æsthetic and hardly visible scar.

Verrucæ seniles disappear sometimes after one application of the paste, leaving no trace of their former existence.

Vascular naevi are often some of the most troublesome lesions for the physician to handle, and it would be rash to speak in any extravagant terms in regard to results obtained by the Semarak

paste. But in a number of instances the effect has been so good that it is proper to mention them. In smaller lesions one or more applications have resulted in their disappearance with no scar, and in one most extensive and distressing case in private practice now under treatment some portions of the affected area have yielded in a remarkable manner. The child, Amanda L., aged 2 months, came to me with an enormous amount of vascular naevi, involving fully one-third of the face and neck. In front of each ear the disease was deep seated and raised, with deep red areas on the cheek and neck. Successive portions have been attacked with the pure paste, and in many places a very superficial cicatrization has followed, obliterating the enlarged blood vessels. Over the angiomatous area in front of the left ear which was the worse, the attempt has been made to produce deep cicatrization by repeated applications of a large quantity of the paste, with the result of obtaining a firm tissue, but little colored; the right side which was left for the baby to lie on, was then attacked, and later the left side will receive further attention.

When seen recently, five months after the last application, over three-quarters of the very extensive area was white, with some superficial cicatrization, in striking contrast to which the untreated, deep red portion stood out strongly.

In all the treatment there has never been any amount of ulceration, and not the slightest hemorrhage from the angiomatous portion, although the family physician who witnessed the application, and also the intelligent mother, have carefully been on the watch for such an accident. It is, of course, too soon to report full success in this case, but the manner in which many portions of the disease have yielded is certainly very encouraging, for the case was most unpromising under other measures.

In this instance only the pure paste has been used, applied in varying degrees of thickness, and left to fall off, generally in a week or two; occasionally it was accidentally rubbed off, but generally remained secure beneath the protective dressings which were applied when the paste was dry.

In one instance in a gentleman, aged 56 a *cyst* in the lobe of the right ear, which had existed a very long time, vanished after a single application of the paste, without the slightest ulceration, and no scar.

In the theoretical criticism of this treatment some time ago, it was argued that there could be no effect from the radio-active thorium in the paste, as it was in such small quantity, but that the only active agent was the sulphuric acid, and very stringent remarks were made

in regard to the advisability of its use. In the light of what has preceded, and nearly three years steady employment of these preparations, and the favorable reports coming in from hundreds of physicians, it is hardly worth while to answer such criticisms, which were made without a single trial of the remedy on diseased tissue. I again affirm most positively that I have never seen a single disadvantageous effect from the remedy, and while I do not advocate its indiscriminate use by inexperienced hands, I do assert that if employed cautiously, as previously indicated, it is capable of producing results which certainly could not be affected by a sulphuric acid paste alone.

It is well, however, to bear in mind that the paste has some caustic properties, and to observe the caution not to use it directly from the vial, but after thoroughly stirring, to remove a little with the glass spatula, and placing it on a glass surface, where it can be diluted if necessary, to then apply it with a glass rod or a camel's hair brush; in this way one avoids the excess of acid, which forms by taking up moisture from the air and naturally rises to the top; I pour off this from my vial of the paste, and even wash off the acid, as previously mentioned. When this precaution is not followed there may be more destruction than is desired, and some little tendency to a keloidal scar, instead of the smooth, natural surface which should be left after treatment.

But speaking of keloidal tissue mention should be made of a remarkable case which was watched by many with great interest during my lectures at the New York Skin and Cancer Hospital. A very intelligent young man, aged 32, had an extensive development of keloid growths about the neck, covering in all several square inches, from some antecedent disease. One was in the shape of a band over half an inch wide and several inches in length, considerably raised, but flattened beneath the collar. Under repeated applications of the paste these gradually diminished in elevation, so that at one time it was thought that they would all disappear, as one had done. But neglecting treatment some of them again asserted themselves, and he was lost sight of.

In conclusion it may be remarked that while the technique of using the Semerak paste and its preparations is relatively simple, they should always be cautiously employed, and cases carefully watched, in order to obtain the best results; the liquor and ointment should never be intrusted to the patient without very explicit instructions, and the paste should in every instance be applied by the physician himself.

This plan of treatment has been watched by several hundred practicing physicians at my lectures at the New York Skin and Cancer Hospital during the last three winters, and many physicians have observed the applications and results in my office and in consultation, while dozens have personally reported favorable results to me and hundreds to the originator, Mr. Semerak, many of whom will shortly report cases.

In view of any possible distrust which may have arisen from the adverse criticism which was made some months ago, on theoretical grounds, without the slightest clinical experience, I may mention the following dermatologists, physicians, and surgeons who, among many others have made use of the same: Doctors P. E. Bechet, H. Britenstool, Wm. P. Cunningham, F. N. Dearborn, H. H. Janeway, A. M. Kane, Chas. A. Kinch, Ferdinand King, B. C. Ochs, J. P. Withington, New York; Binford Throne, Brooklyn; A. W. Hoyt, New Rochelle; H. G. Anthony, W. L. Baum, Carl Beck, W. R. Cubbins, S. E. Donlon, E. A. Fischkin, H. B. Frost, V. D. Iespinasse, Patrick O'Donnell, D. V. Rogers, L. E. Schmidt, J. Zeisler and others, Chicago; L. A. Duhring, Philadelphia; W. A. Hardaway, St. Louis; F. E. Foulk, Des Moines, Iowa; H. Clayton Sumney, Omaha, Neb.; J. L. Smith, Victoria, Texas, and Chas. P. Dickson, Toronto, Canada.

531 MADISON AVENUE.

THE ORIGIN, DEVELOPMENT AND PURPOSES OF THE MEDICAL RESERVE CORPS OF THE UNITED STATES ARMY.*

COL. L. M. MAUS, GOVERNOR'S ISLAND, N. Y.

Chief Surgeon, Department of the East, Governor's Island.

The creation of the Medical Reserve Corps of the United States Army has been an outgrowth from that time honored body of medical officers known as "acting assistant" or "contract" surgeons, whose faithful and splendid services during our Indian, Civil and Spanish wars have added so much to the excellent record of the Army Medical Department.

A large regular army has never been popular with the American people and consequently we have always been compelled to depend upon our citizen-soldiery in time of need. The organization of the Medical Corps of our Army until recently has been very unsatisfactory to the controlling medical authorities, especially in the number of its officers, and hence from time immemorial, in peace and war, we have been compelled to turn to our colleagues in civil life for aid.

As far as I have been able to discover, the employment of civil physicians as army surgeons dates back to the War of Independence, and while no congressional law stands upon the statutes authorizing the grade of "acting assistant" or "contract" surgeon previous to May 12, 1898, War Department regulations and army appropriations have made this anomalous medico-military grade possible.

The original regimental organization of the medical corps of the army, which consisted of one surgeon and two assistant surgeons to each regiment, was abolished many years before our Civil War on account of a large number of objectionable features, which rendered such a system unsatisfactory. Many of the states furnishing regiments during the recent war with Spain learned through experience that the maintenance of the regimental medical department was impossible during active service in time of war, and have very wisely changed their system to conform to that of the regular service. Thanks to Congressional authority for organizing the corps of contract surgeons during the Spanish War, it became possible to supply necessary medical attendance to many of the national guard regiments, whose medical officers had returned home on account of sickness, resignation or through urgent business call.

*Read before the New York Association of the Medical Reserve Corps, Nov. 7, 1912, and reprinted by special permission from the Medical Review of Reviews.

Without reference to the records of the War Department it would be impossible to state the number of physicians from civil life, who served as acting assistant or contract surgeon during the great Civil War from 1861 to 1865, endured the hardships of the many Indian campaigns on the remote frontier, during the 60's and 70's and 80's, or who volunteered for the war with Spain and the Philippine Insurrection. As acting assistant or contract surgeons, thousands of the most gallant men in our profession, have followed the flag on many a long and arduous campaign and bloody battlefield with no motive, save that of love for their fellowmen and country.

The position of acting assistant or contract surgeon carried with it no military rank or prestige, no high salary or gaudy uniform, nor even retired pay or pension in case of disability during active service or on the field of battle. Many of these medical heroes, who entered the regular medical corps of the army at the conclusion of the Civil War and served with distinction until retired for age, were even deprived of the additional grade Congress bestowed on the veterans of that great war, because, as acting assistant surgeons, they were not accorded the privileges of the commissioned medical officer.

The position of the acting assistant surgeon represented a peculiar and anomalous grade in the military hierarchy. In many respects he occupied the position of the commissioned medical officer without military authority or command even in his own department. He was called upon to perform all of the professional duties of the medical officer but none which required military rank or prerogatives. Although amenable to trial by court martial he was not permitted to wear a uniform, sword, sit on military courts or boards, or even to receive the usual military salute from enlisted men or his military inferiors.

Following the Civil War a large number of acting assistant surgeons were continued in the service on account of the great number of small military stations, which were scattered throughout the South and the Indian frontier. When I entered the army in 1874, if I remember correctly, this body of provisional medical officers outnumbered the regular corps, and included among its number many men of the highest military and professional attainments. In 1892 Congress failed to make an appropriation for their further employment, and hence they disappeared from the rolls of the army until the outbreak of the Spanish War in 1898.

Shortly after the declaration of war against Spain, May 12, 1898, Congress passed an act authorizing the Secretary of War to

employ as many contract surgeons as were necessary. Although the regular corps of the army, as well as that of the various volunteer regiments furnished by the different states were fairly complete, it was soon learned that scarcely one-half enough medical officers were on hand to properly perform the necessary medical and sanitary work for the troops and thus again were we compelled to draw largely upon our colleagues in civil life.

Fortunately for those who responded to the call as contract surgeons during the Philippine Insurrection the personal and official conditions had somewhat improved, but not to the entire satisfaction of the new appointee or the officers of the medical corps of the regular army. The field uniform of the regular army was prescribed for the contract surgeon with the exception of the shoulder straps, which were made of silver instead of gold bullion. He was also accorded a military salute from the enlisted men and military inferiors, but otherwise his position remained unchanged.

In the reorganization of the medical corps of the army, which became operative March 24, 1908, Congress included a provision for the creation of the Medical Reserve Corps and the absorption of the contract surgeons then in active service, who were mentally and physically able to pass the required examination. The purposes of the organization of the medical reserve corps were two-fold: First to provide a sufficient number of commissioned medical officers for the performance of the necessary medical duties in time of peace, and secondly, to provide a corps of trained medical officers in case of war.

The commission of the medical reserve corps confers on the holder all the authority, rights and privileges of commissioned officers of the regular grade in the medical corps of the United States Army when called into active service except promotion.

The officers of the Medical Reserve Corps when called into active duty shall become subject to laws, regulations and orders for the government of the regular army during which period they shall be entitled to the pay and allowances of First-lieutenants of the Medical Corps with increase for length of service now allowed by law.

No officer of the Medical Reserve Corps shall be entitled to retirement or pension except for disability incurred in the line of duty while in active service.

Applicants shall be between the ages of 22 and 45 years, citizens of the United States, graduates of a reputable medical school legally authorized to confer the degree of Doctor of Medicine and must be qualified to practice medicine in the state or territory in which he

resides. The examination is confined to the practice of medicine, surgery, obstetrics, gynecology and hygiene.

The law further provides, that the Medical Reserve officer when called into active service is not compelled to respond unless willing. I sympathize with Lieuts. H. C. Coe and Harold M. Hays of the Reserve Corps who feel that this provision should have been omitted. Under ordinary circumstances any commissioned army officer is permitted to resign.

In the foregoing I have briefly outlined the origin and organization of the Medical Reserve Corps, which in my opinion is destined to play an important role in the Medical Department of our army, should America unhappily find herself compelled in the future to sever the leashes of our war dogs again.

With the birth of the Medical Reserve Corps came the passing of the contract surgeon whose field of labor, to all intents and purposes, was identical with that of the regular corps. For nearly forty years, in garrison and field, I have been thrown in the closest social and professional relations with many members of our recent provisional medical corps, and it gives me the greatest pleasure to testify to the universal excellence of their services, in spite of their modest remuneration and unsatisfactory status in the military hierarchy.

From its organization to the present time over 1,400 physicians have been appointed into the Medical Reserve Corps, 225 of whom are on the distinguished list, 802 on the inactive list and the remainder on the active list, discharged, resigned or died. A large number have been appointed for the purpose of taking the course in the Army Medical School at Washington, many of whom have since been commissioned in the Medical Corps of the Army. Among the distinguished members of the inactive list who have passed away may be mentioned Lieutenants J. J. Archinard, W. T. Bull, A. J. McCosh, J. M. Shepherd and J. V. Shoemaker. Among the members on the inactive list will be found the names of physicians and surgeons who have made the profession of medicine illustrious throughout the world.

I have been frequently asked by members of the inactive list what duties they were expected to perform now and during active service. In reply to the first part of the question will state that they are expected to follow that most excellent maxim attributed to the Father of our Country, "In time of peace prepare for War." I realize this is an almost impossible task under the circumstances, and mainly

because the government has provided no system or plan of instruction for the Medical Reserve Corps.

From recent developments it would appear that the regular army was rapidly drifting towards a school of instruction for the organized militia of the country, which naturally should include medical officers of the reserve corps. A plan is now under consideration for increasing the instruction of the medical officers of the National Guard and I think it should include the medical reserve as well.

An annual four months' course could be outlined for the medical reserve corps and the usual manuals and regulations provided, which if followed, would at least blaze the way to the acquisition of the fundamental duties of the reserve medical officer, when placed on active duty. Besides a certain number of them should be mobilized during the regular maneuvers and camps of instruction.

During actual warfare the younger members of the corps would naturally be assigned to active duty with troops in the field, while the older officers would become invaluable as administrative officers, members of scientific and examining boards, recruiting officers, on hospital ships and trains, at the large base hospitals and convalescent camps, and as *locum tenens* at military stations whose medical staff had been ordered to the front.

The Medical Reserve Corps is in the infancy of its usefulness and power, and I trust the day is not far distant when the authorities in Washington will seriously consider its development to meet the purposes for which it was created. In my opinion it should be expanded until its membership has representatives in every city, town and community throughout the country, where suitable and qualified members of the profession are found.

I have always regarded the recruitment of the army the legitimate duty of the medical corps and with the co-operation of such a medical reserve we could reach the remotest homes in the country and fill the ranks with the flower of American chivalry, instead of the material found in the undesirable districts of our large cities.

Now that the dental corps has become a part of the medical department of the army a reserve dental corps should also be created. The army dental corps is doing splendid work at present in spite of the fact that it contains scarcely half enough officers to perform the necessary dental work of the army, and the poor pay they are receiving as a result of the low military rank they hold. In my opinion the rank of first-lieutenant does not carry with it sufficient pay for the work performed by many of our dental surgeons. I trust that Con-

gress will at an early day see the justice of giving them higher rank and pay, at least as high as the chaplains corps.

Adequate rank is of the utmost importance in the military hierarchy, without which orders and regulations cannot be properly enforced. The present military status of the members of the medical reserve corps would become unsatisfactory in time of war, and steps should be taken by the National Association of the Medical Reserve Corps, when the organization is effected to have the defect corrected by future legislation.

It is my opinion that the grade of first-lieutenant of the medical reserve officer should be advanced until he reaches, at least, the lower rank of the field officer. This could be satisfactorily arranged on a scale of time service after submission to such an examination as may be prescribed by the War Department.

A National Association of the Medical Reserve Corps would not only become the means of developing the military usefulness of its members, but a powerful factor in securing appropriations and favorable legislation for the care of the sick and wounded in times of war. I am highly in favor of the organization and hope to see it grow until a prosperous and flourishing division is established in every state of the union.

COLLEGE OF SURGEONS.

An American College of Surgeons was organized at a meeting in Washington on Monday evening, May 5th 1913. Four hundred and fifty prominent surgeons of the continent of North America came together at the invitation of an Organization Committee which was appointed by the Clinical Congress of Surgeons of North America at its meeting in November, 1912. This committee consisted of Edward Martin of Philadelphia, Emmet Rixford of San Francisco, John B. Murphy of Chicago, Rudolph Matas of New Orleans, Albert J. Ochsner of Chicago, Charles H. Mayo of Rochester, Minn., Frederic J. Cotton of Boston, George Emerson Brewer of New York City, J. M. T. Finney of Baltimore, W. W. Chipman of Montreal, George W. Crile of Cleveland and Franklin H. Martin of Chicago.

The invitations, which resulted in this large gathering of surgeons in Washington, were extended by the Organization Committee after a carefully prepared campaign in which each large university city on the continent was visited by a member of the committee who met, in person, a group of selected men brought together by a committee of three in each locality, which committee had been authorized by the Organization Committee to extend an invitation to the surgeons in their locality to meet the representative of the Organization Committee. These five hundred men who were invited to the meeting in Washington, four hundred and fifty of whom responded, represented all branches of surgery and surgical specialties. The surgeons responding to the invitation were designated the Founders of the College.

FOUNDERS MEETING.

At this meeting in Washington, called for the purpose of effecting an organization, the Committee on Organization presented a definite tentative plan which plan included a call of the meeting, the presentation of by-laws, the presentation of resolutions, a plan for the completion of the organization by the election of governing bodies and executive officers.

CALL OF THE MEETING.

The men were called together by Edward Martin, Chairman of the Organization Committee, who called for the reading of the Call of the Meeting.

The Call of the Meeting was read by Franklin H. Martin, Secretary of the Committee. This call, which is herein quoted in part, summarizes the work for which the Committee was authorized:

"First. It should formulate a minimum standard of requirements which should be possessed by any authorized graduate in

medicine, who is allowed to perform independently surgical operations in general surgery or any of its specialties.

"Second. It should consider the desirability of listing the names of those men who desire to practice surgery and who come under the authorized requirements.

"Third. It should seek the means of legalizing under national, colonial, state or provincial laws, a distinct degree supplementing the medical degree, which shall be conferred upon physicians possessing the requirements recognized by this law as necessary to be possessed by operating surgeons.

"Fourth. It should seek co-operation with the medical schools of the continent which have the right to confer the degree of M. D., under the present recognized standards, and urge these colleges to confer a supplementary degree on each of its graduates who have, in addition to their medical course, fulfilled the necessary apprenticeship in surgical hospitals, operative laboratories and actual operative surgery.

"Fifth. It should authorize and popularize the use of this title by men upon whom it is conferred, and its use should especially be urged in all directories of physicians in order that the laity as well as medical men can distinguish between the men who have been authorized to practice surgery, and those who have not.

"The net result of the Committee's efforts is that five hundred surgeons of all specialties, representing every large center of population, every important university city with a teaching faculty of medicine, every special and general society representing a specialty of surgery, all the important surgical clinics and hospitals, besides many independent surgeons from all portions of the North American continent have consented to become founders of the organization under contemplation, and of this five hundred, fully four hundred and fifty are here at this hour ready to fulfill their obligation."

The Founders Organization was then completed by the election of Edward Martin as Chairman and Franklin H. Martin as Secretary and the authorization of an order of business.

BY-LAWS.

The interest in the By-laws centered in: 1. The name. 2. The object. 3. The forming of the organization. 4. Its administrative plans. 5. The meaning of the fellowships. 6. Fees. 7. Directory. 8. Expulsion. 9. Standing committees.

1. NAME. The name of the corporation is the College of Surgeons.

II. OBJECT. The object of the College shall be to elevate the standard of surgery, to provide a method of granting fellowships in the organization and to formulate a plan which will indicate to the public and the profession that the surgeon possessing such a fellowship is especially qualified to practice surgery as a specialty.

III. ORGANIZATION. The corporation is to be known as the College. The College shall consist of all members of the corporation, to be known as Fellows, and shall vest the general management of the corporation in a Board of Governors, and the Board of Governors shall in turn vest the details of the management in a board of trustees, to be known as the Board of Regents.

IV. ADMINISTRATIVE PLANS. 1. The Board of Governors shall consist of the five hundred surgeons invited by the Organization Committee to serve as founders of the College and who have signified their willingness to act in that capacity. The individuals of the first Board of Governors shall also be known as the founders of the College of Surgeons.

This original Board of Governors shall be divided into three classes to serve one, two and three years. At the annual meeting in 1914 and at each succeeding annual meeting, the Fellows of the College shall elect fifty surgeons to membership in the Board of Governors, each for a term of three years. Thirty of these are to be elected from a list of nominations consisting of two members each nominated by the following surgical societies and associations of North America.

American Surgical Association. Section on Surgery of the American Medical Association. Section on Obstetrics, Gynecology and Abdominal Surgery of the American Medical Association. General Surgical Division of the Clinical Congress of Surgeons of North America. Division of Surgical Specialties of the Clinical Congress of Surgeons of North America. American Gynecological Society. Southern Surgical and Gynecological Association. Western Surgical Association. Section on Surgery of the Canadian Medical Association. American Association of Obstetricians and Gynecologists. American Orthopedic Association. American Association of Genito Urinary Surgeons. American Laryngological Society. American Ophthalmological Society. American Otological Society.

Twenty members shall be elected at large to represent surgeons of North America not affiliated with the above societies or associations.

The Board of Regents shall consist of twelve surgeons, members

of the Board of Governors, elected by the Governors, these to be divided into three classes whose terms of service shall expire in one, two and three years. Their successors shall be elected each for a term of three years. Not more than three of each class of four shall be elected from one country. The Board of Regents is increased to fifteen in number by three officers of the Corporation, the President, Treasurer and General Secretary. The two Vice-Presidents are ex-officio members of the Board. The Board of Regents is the administrative body of the corporation, corresponding to a board of trustees in other corporations.

V. FELLOWSHIPS. The Fellows of the College shall be graduates in medicine, who are legalized to practice medicine in their states and provinces, who have made an application for fellowship, such application to be endorsed by three Fellows of the College, one of whom shall be a member of the Board of Governors, and who meets the qualification requirements that shall, from time to time, be established by the Board of Regents, and who shall be elected to fellowship by the Board of Regents on recommendation of the Committee on Credentials.

All Fellows of the College shall be designated a Fellow of the College of Surgeons and shall be authorized and encouraged to use the letters F. C. S. after his name on professional cards, in professional directories and in scientific articles published in surgical literature.

VI. FEES. An initial fee of Twenty-five Dollars shall be required of each member of the College on his election to fellowship by the Board of Regents. The annual dues will be Five Dollars.

VII. DIRECTORY. The Board of Regents shall issue each year a directory containing the names and addresses of the Fellows of the College of Surgeons, arranged by states, provinces and colonies.

VIII. EXPULSION. Any member of the College may be expelled for unprofessional or other conduct inconsistent with the rules and regulations of this Corporation by a majority vote of the Board of Regents.

IX. STANDING COMMITTEES. The Board of Regents shall elect the following standing committees: 1. Credentials. 2. Legislation. 3. Graduate Schools and Hospitals.

These by-laws was unanimously adopted with the provision that the Board of Regents should make any minor corrections deemed desirable and present such corrections for adoption at the next meeting of the Board of Governors.

OFFICERS ELECTED.

President, J. M. T. Finley, Maryland; First Vice-President, W. W. Chipman, Quebec; Second Vice-President, Rudolph Matas, Louisiana; Treasurer, A. J. Ochsner, Illinois; General Secretary, Franklin H. Martin, Illinois.

BOARD OF REGENTS.

J. M. T. Finney, Maryland; A. J. Ochsner, Illinois; Franklin H. Martin, Illinois; George E. Brewer, New York; George E. Armstrong, Quebec; John B. Murphy, Illinois; Edward Martin, Pennsylvania; F. J. Cotton, Massachusetts; Herbert A. Bruce, Ontario; C. F. Stokes, Washington, D. C.; William D. Haggard, Tennessee; George W. Crile, Ohio; Robert E. McKechnie, British Columbia; Charles H. Mayo, Minnesota; Harry M. Sherman, California.

SELECTION OF FELLOWS.

Much interest was manifested in the method to be pursued in the selection of the members of the Corporation and in the method of conferring fellowships. A series of resolutions covering this subject were offered by the Secretary and adopted.

The prospective Fellows are to be divided into four classes, A, B, C and D. Classes A, B and C are by resolution to be admitted without the formality of submitting to an examination under the following resolution:

"RESOLVED, That the A class shall consist of founders of the College.

"The B class shall consist of the members of the special surgical societies constituting the Congress of American Physicians and Surgeons and one hundred each, nominated by accredited committees, from the Surgical Section of the American Medical Association, from the section on Obstetrics, Gynecology and Abdominal Surgery of the American Medical Association, from the General Surgical Section of the Clinical Congress of Surgeons of North America, from the Division of Surgical Specialties of the Clinical Congress of Surgeons of North America, from the American Association of Obstetricians and Gynecologists, from the Surgical Section of the Canadian Medical Association, from the Southern Surgical and Gynecological Association and form the Western Surgical Association.

"The C class shall consist of surgeons of prominence of five years in the practice of surgery or a surgical specialty and who, in the opinion of the Committee on Credentials, are eligible for fellowship in the College without formal examination."

For all others, coming under Class D, the following resolution was passed:

"BE IT FURTHER RESOLVED, that the Board of Regents, through the Committee on Credentials, limit the admission of the Fellows to classes A, B and C, until the Board of Regents formulates a standard of requirements for class D and reports the recommendations back to the Board of Governors for approval at the meeting to be called by the Board of Regents in Chicago, November, 1913."

APPLICATIONS FOR FELLOWSHIPS.

It will be the spirit of this Association to open the fellowship to all competitors in surgery without favor. Scientific attainments, surgical ability, unquestioned moral character, measured by the College's standards, shall constitute the measure for fellowship.

There are many hundreds of surgeons on the continent, who are not included in classes A and B, who fall into the C class. Applications from these men will be welcome and their names will have the most careful consideration by the Committee on Credentials.

All applications for membership should be forwarded to the Secretary of the corporation. It would add to the ease of the work of the Committee on Credentials if references in the way of vouchers or recommendations from one or more well known surgeons accompany each application for fellowship.

FORMAL CONFERRING OF FELLOWSHIPS.

The first convocation for the formal conferring of fellowships will occur in November, 1913, at a time and place that will be designated later. The first directory of Fellows will be distributed at that meeting. For that reason the applications for fellowships on the part of A, B and C classes should be filed as promptly as possible in order to facilitate the correcting of lists for publication.

THE CHICAGO MEDICAL RECORDER

AND
JOURNAL OF THE MEDICO-LEGAL SOCIETY

EDITORIAL BOARD

DR. E. W. ANDREWS	DR. FRANKLIN H. MARTIN.
DR. FRANK T. ANDREWS.	DR. JOSEPH MATTESON.
DR. CHARLES C. BEERY.	DR. FREDERICK MENGE.
DR. R. W. BISHOP.	DR. THOS. J. WATKINS.
DR. JAMES BURRY.	DR. SAMUEL C. PLUMMER.
DR. HENRY T. BYFORD.	DR. ARTHUR R. REYNOLDS.
DR. FRANK CARY.	DR. HOMER M. THOMAS
DR. E. J. DOERING.	DR. H. H. FROTHINGHAM.
DR. JUNIUS C. HOAG.	DR. OTTO L. SCHMIDT.
DR. FRANK S. JOHNSON.	DR. D. A. K. STEELE.

DR. A. CHURCH.

COMMITTEE ON PUBLICATION

E. J. DOERING	A. R. REYNOLDS	HENRY T. BYFORD
---------------	----------------	-----------------

Vol. XXXV. No. 6.	PUBLISHED MONTHLY. Pullman Building	SINGLE COPIES 20 CTS.
NEW SERIES.	Chicago, Ill., June 15, 1913.	\$1 A YEAR IN ADVANCE.

Editorial.

EVANSTON DRAINAGE.

Recently a decision has been rendered by the Supreme Court of Illinois that in effect will compel the Sanitary District of Chicago to build the intercepting sewer system of the city of Evanston.

The suit was started in August, 1912, and was one of those ingenious suits by agreement that apparently has brought the decision that was desired, as the Sanitary District will pay the attorney fees of both sides of the alleged contention. Evanston in the meantime has voted in favor of an issue of bonds to build a filtration plant for the purpose of purifying her water supply.

The experience of Chicago has demonstrated that the lake water is pure if sewage is kept out of it. Evanston should use her money either to extend her water intake farther out into the lake or to build her own intercepting sewers. To continue sewerage into the lake

and filter the polluted water is to violate the very essence of the whole plan of the Drainage District as outlined in the state law of 1889 and subsequent legislation.

Chicago, acting upon competent legal advice, decided that it was not the duty of the Sanitary District to construct her intercepting sewers and has built her own, which cost somewhere about seven millions of dollars.

Evanston and the North Shore could have come into the Sanitary District in the beginning if they desired, but they chose otherwise and did not become a part of the district until 1903. Since then the North Shore annex has paid into the district funds a little over \$643,000, of which the city of Evanston has paid a little more than one-half.

The Drainage District has dug a drainage channel intersecting Evanston from the north branch of the Chicago river to the lake at Wilmette, at an expense of about \$3,000,000. When this was done Chicago supposed Evanston and other towns would turn their sewage into it, but instead of that they continue to pollute the lake, endangering their own water supply and that of their neighbors.

The Sanitary District has not yet completed the widening of the Chicago river sufficiently to allow enough water to flow for the dilution of the sewage of the population of the original district, without creating a current strong enough to interfere with the navigation of that stream. Until this work is done no extra population either on the north or the south should be allowed to drain into the channel of the original district.

If the whole Sanitary District is to build the intercepting sewers for the outlying towns, then it will be the duty of the city of Chicago to institute legal proceedings to recover from the Sanitary District the money expended in building her intercepting sewers.

SIMPLIFYING THINGS.

Physicians have in large measure given up the old practice of writing prescriptions in Latin. They also generally confine the prescription to a single drug. The old shotgun prescription is obsolete, and common sense and simplicity are the rule in prescribing. This habit of physicians is in accord with the recent decision of the Secretary of the Navy to substitute the words right and left for port and starboard in the navigation of boats. Now if accountants will adopt some simple English words so that anyone who can read will be able to understand a financial statement, it will bring comfort to

the poor doctor who has saved a few dollars he wants to invest. It should not require a college education to understand a financial statement. Why accountants should use phrases the average man does not understand no one seems to know. Is it because they have something to conceal?

FLOOD PREVENTION.

Great loss of life and an untold amount of sickness and misery, due to the incident exposure and impoverishment, have been caused by the recent floods in Ohio and Indiana. The floods occurred in the track of water courses that are comparatively small. The cause of the floods was an unusual rainfall in the area drained by the streams at a time when they were already swollen by the waters from melting snow.

In all that has been written or said of the flood there is a strong tendency to look upon the disaster as unpreventable and due to an untoward act of Providence, and to let it go at that. In the old days great epidemics of diseases were looked upon as the will of God and possibly a blessing in disguise.

Had the water courses been left unimpeded by bridges and embankments it is safe to say there would have been but little rise above the ordinary high water mark of former floods. There is plenty of evidence that the driftwood carried down and lodged against the bridges dammed the water back and drowned out the towns and cities. Future floods of such damaging character can be prevented by providing that the surplus water be allowed to spill over and spread out in areas that nature has provided in abundance. It is to be hoped that every possible effort will be made to fix the responsibility where it belongs and apply the proper remedy.

Book Reviews

SURGERY OF THE EYE. A Hand-book for Students and Practitioners.

By Ervin Török, M. D., Surgeon to the New York Ophthalmic and Aural Institute; Ophthalmic Surgeon to Beth Israel Hospital; Consulting Ophthalmologist to the Tarrytown Hospital, and Gerald H. Grout, M. D., Assistant Surgeon to the New York Ophthalmic and Aural Institute; Instructor in the Eye Department, Vanderbilt Clinic; Consulting Ophthalmologist to the Bellevue Hospital, First Division. Octavo, 507 pages, with 509

original illustrations, 101 in colors, and 2 colored plates. Cloth, \$4.50, net. Lea & Febiger, Publishers, Philadelphia and New York, 1913.

This book will be much appreciated by the ophthalmic surgeon and the student. It describes in remarkably clear language all the reasons for performing eye operations, the means to do it, giving a profusion of detailed information relating to instruments, the various steps of the operation, after treatment, complications, etc. Special mention should be made of the excellent and very numerous illustrations, over five hundred in number, with many colored ones. They are well chosen to elucidate the text, in short we have a text book on eye operations which will receive a hearty welcome from the profession and particularly those engaged in ophthalmic work. The chapters on operations on the iris and lens are especially interesting, while the general practitioner will derive much profit from the chapter on instruments and managements, minor operations on the eyelid, lachrymal passages, removal of foreign bodies, etc.

THE MODERN HOSPITAL; ITS INSPIRATION; ITS ARCHITECTURE; ITS EQUIPMENT; ITS OPERATION. By John A. Hornsby, M. D., Secretary Hospital Section, American Medical Association; Member American Hospital Association, etc., and Richard E. Schmidt, Architect, Fellow American Institute of Architects. Octavo volume of 644 pages with 207 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$7.00 net; half morocco, \$8.50 net.

This is the most complete, most thorough, most reliable and most comprehensive book on "Modern Hospitals" in the English language. As its title-page indicates, it treats on every subject pertaining to the architecture, the equipment, the management and every detail pertaining to a modern hospital. It considers everything from the purchase of a site to the construction, the furnishing, the staff, the superintendent, the internes, the nurses, the employes, the patients, etc. Nothing has been omitted. Such subjects as ventilation, plumbing, heating, refrigerating are not only considered in detail but also the costs are given.

This book makes it possible for any community to plan a hospital, large or small, to estimate its costs and to provide everything pertaining to its construction, equipment, etc. It teaches also how everything should be prepared for an operation, instruments, dressing, preparation of the room, preparation of patient, anesthetics, preparation

of materials such as sponges, solutions, etc. It teaches of hospital dietetics, how to buy food to best advantage, the housekeeping department, the laundry, etc., etc.

Every hospital should possess a copy of this book to increase its own efficiency, and no one contemplating the building or running of a hospital should do so without having previously made a careful study of the book before us. Having the pleasure of a personal acquaintance with the distinguished authors of this book, the reviewer is able to assure his readers that no more competent men could be found in this country, who could write such a splendid volume wholly and entirely from their own broad and liberal experience. This book will at once be accepted as a standard work and authoritative guide. We congratulate the profession in Chicago in having among its members such capable writers, who have recognized this long felt want of a complete guide to the planning, manning and running of a modern hospital.

GOLDEN RULES OF DIAGNOSIS AND TREATMENT OF DISEASES. By Henry A. Cables, B. S., M. D., Professor of Medicine and Clinical Medicine of the College of Physicians and Surgeons; Consultant at Jefferson Hospital. Second Edition. Revised and Rewritten. St. Louis: C. V. Mosby Company, 1913. Price, \$2.25.

This valuable little book has been largely rewritten, many new rules have been added, new chapters have been introduced on infectious diseases, and in every way its utility as a guide to the student and general practitioner has been greatly enhanced. It is full of practical advice and in condensed form gives one a good deal to think about, particularly in the way of diagnosis and treatment. No one can read it without being benefited by its "rules."

THE NARCOTIC DRUG DISEASES AND ALLIED AILMENTS. By George E. Pettey, M. D., Memphis, Tenn. Illustrated. Philadelphia: F. A. Davis Company, 1913. Price, \$5.00 net.

A timely book on a much neglected subject. We believe it should be a criminal offense to give a patient a prescription for an opiate or any other narcotic which he can have repeated at pleasure and also distribute among his friends. The reviewer, forty years in practice, has never prescribed narcotics but given them out of his medicine case, and is proud of the fact that none of his patients ever contracted a dangerous drug habit.

As the author states, a much larger percentage of physicians is

addicted to drugs than is found among members of any other profession or calling, and adds the sane advice "For one entering upon the practice of medicine, the author would add to this a fixed conviction that one who lives by his brain must not work under stimulation, that he cannot afford to lengthen his working hours by the use of stimulants. Yielding to this temptation is often the first step toward ruin."

The treatment recommended by the author is sound and efficient, and everyone interested in this subject will learn much of practical value in this book. The author considers that most drug habitués are the blameless victims of disease, and therefore treats it as a disease, a toxemia, of drug, auto and intestinal origin, hence the vital and essential principle advocated is elimination,—a most sensible advice based on sound reasoning. Physical training, diet, hygienic measures, etc., are all considered. We find interesting chapters on concealed morphinism in parturient women, treatment of acute ailments in narcotic drug users and alcoholic subjects, and a very interesting series of chapters on the "review of literature" bearing on the subject.

A careful perusal of this book will put the physician on his guard, with the utmost benefit resulting thereby to his patients as well as to himself.

THE SURGICAL CLINICS OF JOHN B. MURPHY, M. D., at Mercy Hospital, Chicago. Volume II, Number II (April, 1913). Octavo of 171 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Published Bi-Monthly. Price per year: Paper, \$8.00; Cloth, \$12.00.

This number contains a description of Dr. Murphy's original operation for hysterectomy, with illustrations. It also includes a talk on Gastric Ulcer delivered at Dr. Murphy's Clinic, January 22, 1913, by Mr. Robert Milne, F. R. C. S., besides the usual wide range of topics covered in these clinics.

VACCINE AND SERUM THERAPY. Including also a Study of Infections, Theories of Immunity, Specific Diagnosis and Chemotherapy. By Edwin Henry Schorer, B. S., M. D., Dr. P. H. Second Revised Edition. St. Louis: C. V. Mosby Company, 1913. Price, \$3.00.

We reiterate the favorable opinion expressed in our review of the first edition. It is a most reliable book, has been practically rewritten and thoroughly brought up to date. We know of no better

book for the student and the general practitioner who desires to be in touch with the most recent advances in serum therapy. As the author states in his preface, "Vaccine and serum therapy offer such great hopes as specific remedial agents that the profession must be informed about them. The physician should have enough knowledge to enable him to decide when vaccines or sera should be given and what results are to be expected from their use." This the book teaches in a most enlightened way, and every medical man should give it a careful study.

THE INSANITY OF PASSION AND CRIME. With 34 Photographic Reproductions of Celebrated Cases. By L. Forbes Winslow, M. B., LL. D. Cantab., D. C. L., Oxon, etc. London: John Ouseley, Ltd. Fleet Lane, Farringdon street, E. C.

The title of this book gives rise to expectations and the liveliest interest, but the reader is doomed to a correspondingly great disappointment. After reading a few chapters one wonders whether this book can in any sense be modern, and a search of the title page and the preface failing to give any indication of the date of its preparation one can only judge from some of the subject matter and some illustrations of recent happenings in Paris, that it at least has appeared but within a short time.

It would seem that the subject matter must have been prepared for the most part at least not later than the middle of the last century. This may perhaps be made plain by the opening paragraph: "The mind is indeed a wondrous and awful thing. It is an enigma. Those who have deeply studied its phenomena and who have regarded the scope with which it conceives and accomplishes, its intimacy with the Deity or the Demon, must admit this. The beauty with which its God has once endowed it; the depravity to which the wiles of Satan have reduced it; the thrill of happiness or the agony of remorse with which conscience, the essence of the soul, is blessed or agitated, as piety or sin have swayed its actions; and, above all, the final state which it will be welcomed or doomed in its everlasting existence, is for ever uppermost in our thoughts."

Swayed by the theological views and dominated by an ancient psychiatry, the author goes from page to page and chapter to chapter in a way which would have been considered highly edifying by a former generation. In an appendix this is made all the more evident by a table covering 2,457 cases of insanity. In it under the term mania he includes every form of mania, whether puerperal, acute, or

intermittent. Under the term partial insanity, all forms of monomania, moral insanity, melancholia, delusional insanity without violence, and delirium tremens. Under dementia he includes general paralysis of the insane in its last stage, imbecility, and general varieties of what is known as dementia, a chronic form of insanity, and senile fatuity.

As a result of the obscurity pervading the entire book, one can gather no clear idea of what the author means by the insanity of passion or the insanity of crime.

A. CHURCH.

THE PRACTICE OF OBSTETRICS. Designed for the Use of Students and Practitioners of Medicine. By J. Clifton Edgar, Professor of Obstetrics and Clinical Midwifery in the Cornell University Medical College; Visiting Obstetrician to Bellevue Hospital, New York City; Surgeon to the Manhattan Maternity and Dispensary; Consulting Obstetrician to the New York Maternity and Jewish Maternity Hospitals. Fourth Edition, Revised. With 1,316 Illustrations, Including Five Colored Plates and 36 Figures Printed in Colors. Philadelphia: P. Blakiston's Son & Co., 1913. Price, \$6.00 net.

The medical profession of this country can certainly be congratulated on the many excellent treatises on obstetrics by American authors at its disposal. The one before us, belongs to the very first rank and we need only reaffirm the favorable opinion we have expressed from time to time with the appearance of each new edition. This book indeed needs no more commendation. It is a standard text book and the reviewer's duty is practically limited to announcing what alterations or changes may be found in each new issue. After the very thorough revision of the last edition, we find fewer changes although the pathology of the various subjects has been largely rewritten. The whole book has, however, undergone a careful revision and has been fully brought up to date. Among the material added, we may mention anesthesia in labor, vaccine and serum treatment of sepsis, hemorrhage of the newly born, pelvimetry of the pelvic outlet, pelvic outlet contraction, extra-peritoneal, Caesarean section with illustrations, pubiotomy, etc. Fifty-one new illustrations have been added to the book. In short, we have a model standard text book, written by a master of the art, gotten up in faultless style, representative of the best teachings of the day. A book invaluable and indispensable to every practitioner of obstetrics.

MEN, MANNERS AND MEDICINE. By Medicus Peregrinus. Author of "Litora Aliena." Octavo, uncut edges, in heavy paper cover. Price, Postpaid, \$1.00. W. M. Leonard, Publisher, 101 Tremont Street, Boston, Mass.

To the goodly list, headed as by royal prerogative by Oliver Wendell Holmes, of the sons of medicine who have strayed betimes into the domain of literature and as poets, novelists and essayists have shed additional lustre on their profession, must be added the name of the author of this book. First published in the Boston Medical and Surgical Journal, these essays upon men, manners and medicine are here collected into more permanent form. Brightly written, they show a keen insight into the faults, foibles and weakness of mankind, as well as a deep appreciation of those attributes of chivalry, courage and steadfast devotion to duty which make up the sum total of all that is highest and best in humanity.

These essays cover a wide range of subjects, from "The Sacrifice to Asklepios" to "Modern Aspects of Heredity and Evolution," and every essay in the collection has some special reference to the science of medicine and is of special interest to physicians. The book is printed under a nom de plume and dedicated to the Gargoyle Club of Boston. It has as a frontispiece a print of the garden of New College, Oxford. Over the iron gate leading into this garden is the old scroll bearing the legend "Manners Makyth Man," from which the author has evidently taken the title for his collection as well as for the first essay.

GOLDEN RULES OF GYNECOLOGY. By George B. Norberg, M. D., Professor of Diseases of Women and Clinical Gynecology, University Medical College, Kansas City, Mo., Gynecologist to Kansas City General Hospital, Fellow and Ex-President Kansas City Academy of Medicine, 250 Pages. St. Louis: C. V. Mosby Co. Price, \$2.25.

This book gives in a condensed form the cardinal rules, special symptoms, diagnosis and treatment of the various gynecological diseases. It is astonishing how much valuable information can be condensed in each sentence commencing, "Remember that this is so and so," or "Remember to do so and so." But a book of this kind is of the greatest value to the student and practitioner, as in a few minutes he can glean many facts and precepts necessary, especially in diagnosis. The treatment given is safe and satisfactory, and we think no one will fail to realize the merit of these "Golden Rules."

PROGRESSIVE MEDICINE. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Assisted by Leighton F. Appleman, M. D. Published by Lea & Febiger, Philadelphia. Price, \$6.00 per Annum. Volume XV, No. 1. March 1, 1913.

This March issue is No. 1 of the fifteenth volume of this publication. For fifteen years it has been our leading Review of the progress in the science of medicine. The years have shown no retrogression but have upheld the high standard set by the initial numbers.

This number contains first the section upon "Surgery of the Head, Neck and Thorax," by Charles H. Frazier, of the Chair of Clinical Surgery, University of Pennsylvania; II, "Infectious Diseases, including Acute Rheumatism, Croupous Pneumonia and Influenza," by John Ruhrah, Professor of Diseases of Children and Therapeutics, College of Physicians and Surgeons, Baltimore; III, "Diseases of Children," by Floyd M. Crandall, Consulting Physician, Infants and Childrens Hospital, N. Y.; IV, "Rhinology and Laryngology," by George B. Wood, Surgeon to the Department of Nose, Throat and Ear, Howard Hospital, Philadelphia; V, "Otology," by Arthur B. Duel, Professor of Otology, Polyclinic Medical School, New York. To completely equip the volume it is provided with a carefully compiled index.

THE CAREER OF DR. WEAVER. By Mrs. Henry Backus. Illustrated by Wm. Van Dresses. Boston: L. C. Page & Co. 1913.

This is a novel of more than ordinary interest, dealing with the modern progressive movement in politics. Its special interest for physicians lies in the fact that the hero of the story is a doctor and around his career is woven much of the plot.

THE SEXUAL LIFE OF THE CHILD. By Dr. Albert Moll, Translated from the German by Dr. Eden Paul, With an Introduction by Edward L. Thorndike, Professor of Educational Psychology, Teachers College, Columbia University. New York: The Macmillan Company. 1913. Price, \$1.75 net.

This is a most excellent book for the physician, the clergyman, and the principals of schools, but we do not by any means agree with the translator Prof. Thorndike that "if the men and women in America would read this book, there would be less harmful imagination as a result than from the occupations which its reading would replace."

On the contrary, we believe they would get the most distorted ideas of the sexual life of the child. For while every caution given in the book is worthy of attention, every warning should be taken to heart, the fact remains nevertheless that fully 95 per cent of all children are far more absorbed in their dolls, their toys, their games, their plays, than they are in sexual problems. But physicians, clergymen and educators should be fully alive to all the dangers depicted in this book, and in their turn instruct parents to watch their children, be their confidants, and be guided by the author's summing up, viz.:

"The sexual enlightenment of the child is advisable. The biological processes of sex in the vegetable and lower animal world may be taught in school as nearly as the second period of childhood. A warning against the dangers of venereal infection may be given at school to the senior pupils shortly before they leave or at some similar suitable opportunity. But for effecting enlightenment regarding the processes of the individual sexual life, the school is unsuitable; this matter can best be undertaken by some private person and above all by the mother. Choice of the time for this last phase of the sexual enlightenment must be guided in part by the questions of the child, in part by the child's physical maturity, but more especially by the indications of psychosexual development."

News Items.

For Sale.—Cheap. 1-16 Plate Static and X-Ray Machine, with $\frac{1}{4}$ horse power motor. Dr. W. S. Hendricks, 2808 Diversey avenue, Chicago.

To Rent.—Office hours to a physician in a furnished office. Morning hours up to 1 p. m. Rent, \$15.00. Room 1110 Stewart building, State and Washington streets.

For Sale.—Have for sale a "Yale Surgical Chair" in first class condition—a bargain. Can be seen in the store of **Hausmann & Dunn Co.**, 708 S. Clark street, between Harrison and Polk streets. Ask for Mr. J. P. Dunn.

Personal.—Dr. John J. Mahoney announces a residence office at 6053 South Halsted street. Hours 9-11 a. m. and 7-8:30 p. m. Telephone Englewood 6440. Downtown office remains in Suite 802 Reliance building. Hours 3-6 p. m. Telephone Central 2129.

Dr. John R. McDill, Milwaukee, who has been for several years in the Philippine Islands, has been appointed associate professor of surgery (tropical diseases) in Rush Medical College and will give a short course next winter.

Dr. Maximilian Meinhardt announces that he will assume personal

management of the Lakeside Hospital, 4147 Lake avenue, on August 31, 1913. The hospital will then be known as Lakeshore Hospital.

The following appointments are announced on the attending staff of Cook County Hospital, Department of Contagious Diseases: Drs. Archibald L. Hoyne, William L. Baum, George H. Weaver, Edward K. Armstrong and Anson M. Cameron; department of children's diseases, Dr. Grace L. Meigs; department of pediatrics, Drs. J. H. Hess, C. G. Grulee and Joseph Brennemann.

Dr. Thomas J. Watkins, of this city, was elected vice-president of the American Gynecological Society at the recent meeting held at Washington, D. C., May 6-8, 1913.

Dr. John L. Porter was elected treasurer of the American Orthopedic Association at the meeting held in Washington, D. C., May 6-8, 1913.

Chicago Doctor Killed by Own Auto.—A peculiar automobile accident caused the death of Dr. Franklin B. Gottschalk, 848 Montrose avenue, on May 24th. A few days previously the physician was working with his automobile when a wheel of the machine passed over his foot. The foot was crushed and fatal blood poisoning set in. Dr. Gottschalk was 45 years old and had lived in Chicago all his life.

Alienists and Neurologists Will Meet in Chicago.—A meeting of the alienists and neurologists of the United States will be held in Chicago June 24-27, 1913, the week following the meeting of the American Medical Association at Minneapolis. This meeting is the outcome of a similar meeting held last year. Further details may be obtained from Dr. Harold N. Moyer, chairman, or Dr. W. T. Mefford, secretary of the committee, to arrange for this meeting.

Dedication of Children's Hospital.—On May 25th the formal opening took place of the Sarah Morris Hospital for Children. This institution was made possible by the gift of Mrs. Sarah Morris, widow of Nelson Morris. She left \$300,000 for that purpose. At the time of her husband's death, Mrs. Morris gave \$250,000 for establishing the Nelson Morris Memorial Institute for Medical Research in connection with the Michael Reese Hospital. Upon her own death a few years later, the further sum of \$300,000 was left for the children's hospital, and her executors, Edward Morris, Mrs. Gusta Morris Rothschild, Mrs. Maud Schwab, and Ira Nelson Morris, decided to affiliate the new institution with Michael Reese Hospital.

The Sarah Morris Hospital for Children has modern and perfect scientific equipment. It has 125 beds for the care of sick children, and while it is primarily a free hospital it has limited accommodations for pay patients. Large porches and sun parlors are so built as to overlook the lake; the doors opening upon these are wide enough to permit the little patient's bed to be rolled from the ward on to the porch without disturbing the patient. There is also a kindergarten room for convalescent children and a gymnasium for those able to use it.

Completely equipped operating rooms are provided, with special rooms for throat and nose operations. A milk laboratory is maintained and equipment for hydro-therapy is installed.

The attending staff of Michael Reese Hospital will be the attending staff at the children's hospital, the children's staff being headed by Dr. Isaac A. Abt, with Dr. Ernest Lackner and Dr. Julius H. Hess as his associates.

Historical Medical Museum in London.—The Historical Medical Museum, organized by Mr. Henry S. Wellcome, which is to be opened in London towards the end of June next, will include some objects of exceptional historical medical interest.

An important exhibit in the science section will be a large collection of the original apparatus used by the famous Galvani in making his first experiments in Galvanism in the 18th century.

A remarkable collection of votive offerings for health will be exhibited. The custom of presenting these offerings in cases of sickness is a very ancient one, and the collection that will be shown is probably the finest ever brought together. It will include Graeco-Roman votive offerings of special anatomical and pathological interest in silver, bronze, marble and terra cotta, together with a number of similar objects used for the same purpose in mediaeval and modern times.

Ancient microscopes and optical instruments, gathered from all quarters of Europe, will form another important feature, and a selection of surgical instruments used by famous surgeons when operating on historical personages is promised.

The collection of amulets and charms connected with English folk medicine will be very complete, and will constitute an exhibit of more than ordinary interest.

A fine collection of early medical medals and coins from the Graeco-Roman period, ancient manuscripts and early printed medical books will also be shown, together with many other objects of interest to medical and scientific men.

A New Hospital Journal.—Interesting announcement has been made of a new Hospital Journal, the first number of which will be published on August 15th as a Convention number for the American Hospital Association which meets in Boston on August 25th. The Journal is to be rather a large proposition. Dr. Ball, of St. Louis, will be the business head of the new publication. Dr. Henry M. Hurd, Johns Hopkins Hospital, Dr. Frederic A. Washburn, Administrator of the Massachusetts General Hospital, Boston, Dr. Winford H. Smith, Johns Hopkins Hospital, and Dr. John Allan Hornsby constitute the editorial staff. Dr. Donald Mackintosh, perhaps the most famous hospital man in Europe and superintendent of the Western Infirmary at Glasgow, is also one of the hospital men on the editorial staff and likewise Dr. Michael Knoedl, head of the Allgemeines Krankenhaus of Vienna. There are to be a few medical men also on the editorial staff. The medical staff part is headed by Sir Wm. Osler of England, and Dr. Carl von Hoorden of Vienna. The Americans who will be on this medical editorial staff have not yet been designated.

It is intended that his new Journal, which will be a monthly at the start, shall be of real help to the hospital people and that it shall be

their Journal in the sense that it is a Hospital Journal by hospital people, for hospital people, and for the hospitals. It is really the outgrowth of the creation of a Hospital section by the American Medical Association which took place at Los Angeles two years ago, and the fundamental intention is that the hospitals of the country shall be placed under the direction of the medical profession in so far as their scientific work is concerned.

A Practical Method of Preventing the Unnecessary Waste of Condemned Milk.—It is the custom of officials in many cities to condemn milk because of the failure of the milk dealers to comply with certain temperature standards. Usually this milk is disposed of by emptying it into the gutter, though some attempts have been made to denature the milk by adding certain substances which would render it unfit for use in its fluid state. It is unfortunate that this milk which is valuable for feeding farm animals should be needlessly wasted. This loss can be prevented if the milk is returned to farms where it can be utilized for feeding live stock. Condemned milk could also be used in the city for making casein and for other purposes.

The Dairy Division of the Bureau of Animal Industry, United States Department of Agriculture, has recently conducted some experiments in order to devise some practical method of denaturing milk so that its sale as market milk may be prevented and yet leave it in a condition suitable for feeding farm animals. The work thus far has proved that the use of a rennet solution is effective for this purpose at the usual temperature at which milk is condemned.

In these experiments a 3 per cent water solution made from powdered rennet of a strength of 1 to 30,000 was used, and 40 cubic centimeters of this solution were added to 5-gallon cans of milk at different temperatures. The tests were made in a room where the temperature was 80° F., as that is about the temperature of the air in summer when most of the milk is condemned. In one test the rennet solution was added to a 5-gallon can of milk at a temperature of 50° F. In 1 hour and 15 minutes the milk was slightly thickened, its temperature then being 57°. Thirty minutes later the temperature had reached 59° and a soft curd formed. An equal amount of milk at an initial temperature of 65° was treated at the same time. In 1 hour and 10 minutes the milk in this can was firmly coagulated, and it is probable that the rennet had produced the desired effect in much less time. At the end of this period the temperature had been raised only 1.2 degrees, or to 66.2° F.

In the light of these experiments it is believed that if a rennet solution of this strength is added to condemned market milk satisfactory results can be secured under ordinary conditions without the disadvantages of the other methods which have been tried.

If a 3 per cent solution is made from rennet, strength of 1 to 30,000, about 2½ ounces (80 cubic centimeters) of this solution will be required for a 10-gallon can of milk at a temperature of 53° or higher. The cost of the material for this method of denaturing is very small, being only about three and one-third cents for a 10-gallon can when powdered rennet costs \$7 a pound.

It is recommended that these also be completed using this method should not their solution in the laboratory before using them in practice, so as to know actually the strength of each solution prepared.

Proper Illumination of the Operating Table.—Hospital authorities have in the past experienced considerable difficulty in obtaining proper illumination for the operating table.

Surgeons have frequently been obliged to perform delicate operations with insufficient light on the patient, and in many cases the surgeon's head has been subjected to an intense heat caused by reflection.

Working in this manner, under poor lighting conditions, and at the same time suffering intense discomfort, it is not surprising that surgeons should occasionally mistake the direct flashlight operating reflexes.

This subject is discussed in somewhat more detail in the product of



One of the two forms designed by the author for the use of the flashlight operating reflexes.

long and careful study to produce an illuminating device which will give the proper quality, intensity and distribution of light with a minimum of heat. The device is the illuminator produced by a First Reflector that every minute detail of the body is shown in perfect detail.

The reflector screen is made of white enameled metal, designed for use with incandescent lamps. The metal illuminator is composed of a series of mirrors, each of which is tilted at an angle of 45 degrees. By this means the light is reflected in a series of 90 degree angles, and the light is distributed in a series of 90 degree angles. The other screen device gives out a brilliant, white light and temperature is an effectively open air operating table.

An equally important feature of the First Reflector is its lightless reflecting arrangement. It would be impossible for a surgeon

THE CHICAGO MEDICAL RECORDER

JULY, 1913.

Original Articles.

THE PLACE OF VACCINE THERAPY IN THERAPEUTICS.*

BY DR. ADOLPH GEHRMANN.

It is not my purpose to name all of the conditions in which vaccine therapy can be used, nor to demonstrate results by case records, but rather to offer for your consideration principles and deductions. The popularity of what we call vaccine therapy is growing very rapidly. The hypodermic injection is so common that scarcely any one makes objection to it. Even when the reactions are somewhat violent there is still little expressed alarm. Some years ago most of our patients would have objected violently to having bacteria injected into them. Our manufacturing pharmacists have promulgated this type of therapeutics until they would have us inject a dose of their stock emulsions in every case that has a little fever. The reason for this is easy to see. There is profit in these stock preparations. To obtain and put together even an ordinary prescription of drugs may require a relation with foreign countries to obtain the crude drugs, more or less careful chemical work in their preparation and an accurate compounding by the pharmacist. In consequence of all this there is a division of the price for the prescription between many hands. If we take the coal-tar remedies we have much the same, but it must be said that the German chemists save themselves the trouble and danger of expeditions to find useful drugs. They simply take the stored coal-tar products and synthetically prepare what they wish in their own laboratories, and have the pleasure of enjoying themselves at home. Again, the preparation of antitoxins is complicated and

*West Side Branch Chicago Medical Society, March, 1913.

painstaking. Price cutting has taken much of the profit from this class of remedies. For the stock vaccine there is no necessity for carrying expensive stock. Ordinary commercial supplies will make up culture media. There is little division of profit except for advertising and handling. I am inclined to think that these gentlemen would be best satisfied to have us depend upon a few syringefuls of mixed treatment on our pharmacist's shelves than upon the extensive array and duplication of remedies that have grown up during the period of pharmaceutical chemistry.

That vaccine therapy is being extensively tried may be known from the fact that there are in the last volume of the *Journal of the American Medical Association* no less than thirty-four references to vaccine therapy. The coal tar wave in therapeutics is subsiding and a certainly more rational procedure is taking its place. For the selected cases vaccine therapy is a method of highest efficiency and one founded on a correct principle of cure. Therapeutic methods have passed along in a series of enthusiastic expoundings and laudation of different types of medicaments. This is the natural outcome of a closer understanding of the nature and course of disease. The herb treatment, the synthetic drug treatment, the vaccine treatment have followed one another.

Pasteur recognized the possibilities of immunization by vaccination. He predicted vaccines to prevent each infectious disease but his work was on the side of prevention. The principle was that of true vaccination, namely, the application of an attenuated culture to the host. His energies were directed towards finding the correct methods for attenuation of a virus that it might be safe to use and handle. The methods of vaccination, developed by Pasteur, against individual diseases have stood without material change. His experiments were good, his deductions clear, and his acceptance of limitations praiseworthy. Later, through studies on immunity by Metchnikoff, Wright and others, the path of Pasteur was left and a therapeutic system was developed. The former was preventive, the latter is curative in intent. The fiasco of the opsonic index depressed enthusiasm for a time. Now, however, we are passing a new wave of enthusiasm, although attempts to replace the opsonic index by a control method have not been successful. Recently Guggisberg (*Muench. Med. Woch.*, 1912, p. 1207) has urged the leucocyte count as a guide in following vaccine injections in gonorrhea. Such estimations may have a place in deciding our position in some cases, but on account of not having a satisfactory technical method for controlling vaccine therapy we are

more or less in the dark as to dosage and results. Advantage of this is taken by the manufacturer who advises us to give an injection anyway. "It can do no harm, and, if the patient improves, give another injection." The evidence of result is left to the personal equation rather than to a laboratory demonstration. In addition, there is often misapprehension that this is a serum treatment, and that the action of vaccines is directly curative while the fact is that it is a modification of artificial active immunization.

The principles of vaccine therapy must rest on the scientific study of immunity. That these should be the same for all diseases is not to be expected. We have a tendency to apply this procedure in a rather loose method, a kind of subcutaneous therapy that may be likened to drug gastro-intestinal therapy for all manner of conditions. Vaccine therapy should be considered as different from immunization. It is the treatment of infection by means of or by aid of vaccines. Generally, our ideas regarding vaccines are vague and crude, and further than this, our methods are indifferent and uncertain. Leaving aside all of the data as to the utility of vaccine therapy, let us look critically at some of the scientific principles involved.

A vaccine is an attenuated virus that will produce a mild infection, but not enough to protect. A virus may be attenuated in many ways, but it remains a virus as long as it is alive. The preparations that we are using are not in a true sense vaccines. They are preparations of various kinds made under different systems and according to doubtful standards. In reality, this is a toxin therapy that is of a most variable character. The principle involved is a stimulation of natural resistant activities by which the invading bacteria are overcome. There are two possible conditions. First, where the parasite is slowly invading and when the immunity is not being developed fast enough to stop its advance. Second, where the parasite is firmly established and the tissues have become accustomed to its presence and are only moderately disturbed. Here there is a balance with not enough resistance to cause a complete discharge of the parasite.

In applying vaccine therapy we are also dealing with our patients on a very different basis from that when we apply vaccination. At first sight it does not present a good principle, in that it is apparently adding to the infection. The well-established methods of vaccination against infections are recognized as being of no particular value after the infection of the animal has begun. However, what we call vaccine therapy has a place in the following conditions surrounding an infection:

1. Where the infection with a mild parasite has become subacute.
2. Where the infection is on the surface and is not completely discharged.
3. Where the infection recurs because of a short immunization period.

A very usual relation between parasite and host is that of toleration. The host is not sufficiently stimulated to dispose of the parasite or, independently, has not the means of accomplishing its destruction. Then there develops a condition of agreement. The parasite remains without doing particular damage, but becomes a nuisance. These infections become mixed in time and then recover, owing to an overgrowth of one species over another, until saprophytes eventually remain, to be finally discharged. In these cases the injection changes the relation of parasite and host and terminates the infection.

In the second type there is a surface infection, usually mucous membrane, in which the absorption of toxins is slow or incomplete because of changes in the mucous surface. Antigens do not reach the circulation. There is again no stimulation of resistance and the infection goes on indefinitely. This is a vicious circle in an infection. The parasite just stimulates enough to cause the submucosa to be filled with cells that interfere with the circulation, and in this way directly prevent the host from developing an active defense. By using our injection we pass this barrier and make a latency become active.

Third Type: The immunity period following many infections is short, and there is recurrence if exposure again occurs. These are mainly the mild strains of pus cocci of the skin. The continuously low opsonic index, as considered by Wright, probably does have a place as an etiologic factor. We, however, see persons with a rather severe infection recurring every few weeks or months, with apparent freedom during the intervening periods. The reaction to the parasite is strong, and the recovery complete, giving the impression that the opsonic index had made a rapid and effective rise. It is reasonable that it falls again, allowing the next attack.

When we appreciate what we are doing when making injections of bacterial vaccines, we may consider the indications and contraindications for their use. I am of the opinion that there is far too much haphazard in present practice. There should be a bacteriologic diagnosis, so that a correct start may be made, and that the individual will not have to destroy unnecessary toxins. To a very considerable extent the entire procedure is specific, but not absolutely so. In those cases where the leucocytes, as phagocytes take a leading part, a gen-

eral stimulation of these cells may be enough. The cases must be selected. Here the points for determination should be, the rapidity of the advance of the infection, the degree to which the patient is reacting to his infection, and the stage to which the infection has advanced. Vaccines applied early, especially in slowly increasing invasions, may induce a rapid abortion and retrogression of the attack. I have seen pustules at once subside when an injection was made with the vaccine prepared from the last pustule. The application of vaccine is indicated in any infection when the patient is not reacting against it. Here the Wright method of inducing an artificial reaction, as it were, is good practice, and should help in recovery. In regard to recurring infections, as mentioned above, the short immunity period may be extended by vaccine injections. This is especially true of the general mixed mucous membrane infections of the respiratory passages of early winter. Sometimes several of these attacks have to be gone through before there is relief. In this class of infections a well applied vaccine therapy will greatly strengthen resistance.

The contraindications to vaccine therapy are: First, rapid fulminating infections. I believe that in these vaccine injections are more than useless.

Second, when the infection is confined, whether the patient is reacting to it or not. In these cases the area of localization must be located and drained, if possible.

Third, old chronic infections with a mechanical feature interfering with recovery. Christie (*Medical Record*, Sept. 28, 1912), in discussing vaccines in ear infections, does not find it as useful in the old chronic cases as in the subacute, and suggests that injections be used in conjunction with and not exclusive of other means of treatment.

Fourth, cases that have been absorbing excessive toxins and in consequence are in a depressed state are not suitable for vaccine treatment.

Fifth, cases in which there is an underlying nutrition defect, which in itself prevents the formation of normal immune bodies in more or less amount.

The length of time to continue injections is often hard to state. I am of the opinion that we should see improvement soon when the right vaccine is used. If there is not at least a moderate reaction after injection the vaccine is not right, and, on the other hand, if there is not an early evidence towards recovery the patient is not right, and some other treatment should be used. The longer vaccine

injections are made in a given case, just so should they be further apart. In the ordinary case under treatment the relation to vaccine should soon change from that of therapy to immunization.

Your discussion will most likely turn about the kind of vaccine to use. In practice this is next in interest to the indications for vaccine therapy. In principle, it may be said that the nearer the natural conditions of virulence are represented in a vaccine so more certainly will the normal defense be stimulated. I have prepared vaccines without heat by allowing the emulsion in 0.5 per cent carbolic acid to become sterile by a number of days' contact. All methods of preparing vaccines alter the cell constituents somewhat. Autolized or extracted cells are still more changed. Such extracts are often much more toxic, and it is a question if defensive bodies are induced the same as when the individual has to deal with the entire cell. The autogenous vaccine is best in principle, but is often difficult to prepare because there is a mixture of organisms in the infection or because it is not readily cultivated, as illustrated by the difficulties in making gonococcus or tuberculosis autovaccines. On the whole, the selection of the vaccine should depend upon the bacteriologic findings in the given case.

Vaccine therapy has a distinct place in our methods of treatment. It should not be abused. Vaccines should not be given without knowing the bacteriology of the condition before us, nor should it be excessively continued in any case for the reason that we are applying toxins as a kind of indirect treatment. Bearing the above factors in mind, you will see many kinds of infection promptly benefited by its use.

COLUMBUS MEDICAL LABORATORY.

SOME OLD SCALPELS.

By WELLER VAN HOOK, A. B., M. D.

Dr. James M. Everett, of DeKalb, Ill., has kindly allowed me to figure and comment upon some scalpels purchased at second hand by his grandfather in 1787. The knives are, consequently, quite old.

Their graceful shapes and their high quality of steel and workmanship make them worthy of study. Modern instrument makers sacrifice much of these qualities in the wholesale production of our cutting instruments, and it is high time that surgeons demanded and obtained better and more artistic types of scalpels.

Note especially the gross pattern of the blades which is much like those of the more recent knives, which has taken the place of the pattern so common in the hands of surgeons twenty-five years ago, when the dissecting room pattern was still common surgical use. The shape makes possible the use of the part of the knife near the point, and permits great accuracy of incision and dissection.

Figs. 3-4 represent an obsolete pattern of double-edged knife, which is figured because it shows the elegance of the cutler's design and grinding.

The comparative cheapness of modern steel as manufactured in great bulk by the Bessemer process has caused many instrument-makers to give up the more carefully prepared metal of the older process. It is unknown to most physicians that the different grades of steel vary widely as to chemical composition as well as internal structure, hardness, toughness, etc.

The best cutlers of a hundred years ago were compelled by the surgeons who patronized them to use the finest qualities of steel because the surgeons frequently understood the qualities of military cutlery—swords, daggers, etc. The workmanship as well as the quality of metal in these old knives is exquisite. It is easy to see that both the forging and grinding have been conducted as carefully as the preparation of the metal and the designing.

Several of the leading instrument makers of the world provide, today, surgical cutlery of the most meritorious type. Of these Weiss, of London, is easily the most distinguished. His scalpels are all that one can desire as to metal, design and workmanship. A few well-selected scalpels of this maker's stamp will last for years, even of an active surgeon's use. They will bear honing, stropping and grinding as well as the best of razors and are useful and admirable even when nothing but the stump of the original instrument remains.



Figs. 1 and 2.—Eighteenth Century Plain Scapel of Dr. Everett.



Figs. 3 and 4.—Eighteenth Century Scapel of Dr. Everett, Partly Double Edged.

The purpose of this note is especially to urge upon surgeons the desirability of paying a good price for a few knives and then insisting upon a high quality. It is well worth while for the surgeon himself to maintain a set of sharpening stones and to keep at least his scalpels in perfect order.

“THE RESULTS OF TONSILLECTOMY UNDER LOCAL ANESTHESIA.”*

By BRYAN DEFOREST SHEEDY, M. D.

All of the one hundred cases reported upon by the reader of the paper were examined several months after operation, and no patient under fourteen years of age was operated upon under local anesthesia. There was no grouping of the patients examined as to whether the throat conditions were the result of operation under local or general anesthesia. The enucleation of the tonsils had been performed by some one of the many methods in vogue for the last few years for the complete removal of the gland, and as the operations were performed in practically all the public institutions in New York City, many men of prominence in laryngology were the operators, so that the results could not be attributed to poor technique on the part of one man.

The writer arrived at the conclusion that tonsillectomy, so far as removing pathological tonsils is concerned, is a better operation than the old time tonsillotomy, but pointed out that many of the throat defects following the operation of enucleation are due to clumsy and non-surgical technique.

The writer also pointed out the normal relation of the surrounding parts to the tonsil and put up a strong argument against the use of sharp instruments for the dissection of the tonsil from its bed, that being the cause of injury to the muscles with resulting deformities.

Of the one hundred cases examined months after operation more than 80% of the patients had deformed throats. The 20% of patients, with what appeared to be normal throats following the operation, were inconvenienced in no way at any time following the operation. Of the eighty patients thirty-four complained of speech defects for from one to three weeks after operation, sixteen complained of speech defects for more than three months after operation, while four had prac-

*Abstract of paper read at Minneapolis meeting American Medical Association, June 17-21.

tically lost the singing voice. About 25% of the patients stated that their throats felt better and that they could speak and sing better after operation than before. Inability to use certain words had continued with 5% of the patients for more than six months after operation.

The variety of deformities following enucleation were classified as follows:

(1) The pillars on both sides had disappeared with the soft palate tightened to such an extent that the opening at the nasopharynx was narrowed.

(2) The pillars on both sides had grown together.

(3) The anterior pillar had wholly disappeared, with a large amount of cicatricial tissue deposited on the posterior pillar.

In the four patients whose singing voice had been seriously affected the posterior pillar had disappeared through amalgamation with the anterior or with the lateral wall of the pharynx.

The reader emphasized the fact that he did not think the last word had been said in regard to tonsil enucleation and proposed as a remedy for preventing the unsatisfactory throat results an operation for removing the tonsil by what he called the "Eversion Method," and with charts and diagrams pointed out that the capsule of the tonsil is simply a bag, the bottom of which may be pulled through its mouth so that its inner surface becomes the outer, and that if the capsule with its glandular tissue is everted and a snare placed on, removing the tonsil with its capsule complete (there being no dissection and therefore no injury to the muscles surrounding) there would be no deformities.

The exceptions to the rule presented, viz., that the tonsil will evert on traction, were:

(1) Those cases in which the capsule was bound down to the surrounding tissues by previous attacks of inflammation.

(2) Those cases where the capsule was very much contracted and contained cicatricial tissue only.

(3) Those cases of hypertrophied tonsils which had everted themselves and the tonsil was found everted when the patient applied for treatment.

The points advanced in favor of the procedure were:

(1) Simplicity of the operation.

(2) Practically no hemorrhage.

(3) Little or no deformity following the procedure.

(4) Only three instruments necessary for the operation, viz., tonsil tenaculum, blunt pointed tonsil knife, Tyding snare.

**MEDICAL EXAMINATION OF EMPLOYEES.
THE TWO YEARS' CAMPAIGN OF THE COMMITTEE ON
FACTORIES OF THE CHICAGO TUBERCULOSIS
INSTITUTE.***

THEODORE B. SACHS, M. D.,
Chairman Committee on Factories, Chicago Tuberculosis Institute.

On July 30, 1911, a plan for early detection of tuberculosis among employes was submitted to the Chicago Tuberculosis Institute.† This, followed by the appointment by the Institute of a special Committee on Factories, marked the beginning of a systematic campaign in the city for medical examination of employes. In the first part of the campaign emphasis was laid exclusively on detection of tuberculosis in the course of such examinations; later the campaign resolved itself in the advocacy of general medical examinations aimed at detection of any breaks in the health of employes.

SOME OF THE ARGUMENTS USED IN THE ADVOCACY OF THE PLAN.

The most important of the arguments used in the two years' campaign were as follows: 1. Protection of health of the working force by the elimination of sources of infection; 2. Prevention of physical deterioration of employes by early detection of disease and immediate institution of treatment; 3. Prevention of unnecessary financial loss to the employer resulting from imperceptibly growing reduction of the working power of employes afflicted with a non-recognized, slowly developing ailment; 4. A higher standard of health and efficiency of the entire working force, achieved through a system of individual and general instructions having for their object the increase of resisting power of employes below grade and preservation of health of those in normal condition.

The motto used in the campaign was: "Higher standard of health and greater efficiency."

SOME OF THE METHODS GAINING ADHERENTS.

Some of the methods used in gaining adherents to the plan were:

*Reprinted from June Bulletin of the Chicago Tuberculosis Institute.

†For details see "Examination of Employes for Tuberculosis" in "The Survey," October 21, 1911; "The Survey," April 20, 1912; Transactions of the Eighth Annual Meeting (1912) of the National Association for the Study and Prevention of Tuberculosis; Transactions of the Fifteenth International Congress of Hygiene and Demography (Washington, 1912); Illinois Medical Journal, February, 1913; special pamphlets on the subject published in 1912 and 1913 by the Committee on Factories of the Chicago Tuberculosis Institute, Otis Building, Chicago.

1. Circulation among business men of pamphlets on medical examination of employes published by the Committee on Factories; 2. Conferences between officers of the committee and lay and medical representatives of individual concerns; 3. Monthly conferences, under auspices of the committee, of representatives of business concerns for the purpose of general discussion of the various phases of the problem. The attendance at these conferences included heads of concerns, superintendents, physicians, nurses and social workers in their employ, superintendents of employes' benefit associations and others actively interested in the problem. During the last ten months the attendance and the subjects for discussion were as follows:

July 1, 1912: Present, 7; firms represented, 4; subject: "Examination for tuberculosis as a part of general medical examination."

August 9th: Present, 3; firms, 2; subject: "Present status of medical examination in factories."

November 8th: Present, 7; firms, 5; subject: "Comparison of methods of medical examination used in concerns represented at the meeting."

November 22d: Present, 21; firms, 9; subject: same as at previous meeting.

February 19, 1913: Present, 33; firms, 15; subject: "Care of health of employes."

March 19th: Present, 30; firms, 17; subject: "What constitutes an efficient medical examination of employes."

April 23rd: Present, 23; firms, 8; subject: "The share of the company in the financial provision for sick employes."

May 5th: Present, 25; firms, 13; subject: "German and English sickness insurance laws."

May 28th: Present, 27; firms, 13; subject: "Report of the Special Committee on what constitutes an efficient medical examination of employes."

In all, the attendance included 125 individuals, representing 30 firms. The interest in the conferences and the thoroughness of discussion of the various phases of the problem have grown steadily. As an open forum for interchange of experiences and adjustment of views on a subject of great importance, these conferences have been of great value in moulding opinion and advancing the cause.

PLAN OF EXAMINATION OF EMPLOYES FOR TUBERCULOSIS.

The details of the plan submitted to the Chicago Tuberculosis Institute two years ago and since then advocated by its Committee on Factories is as follows:

I. PHYSICIAN TO EXAMINE ALL SUSPICIOUS CASES.

In places with established medical service, this task should be assigned to physicians in employ of the firm. In large establishments a special "tuberculosis" examining physician may be necessary. In either case, possession of special experience in diagnosis of tuberculosis is important.

Duties of the physician: Examination and diagnosis of cases; disposition of cases found tuberculous; instruction of the sick in the essentials of treatment and of the "predisposed" in right living and in measures tending to increase the general resistance; frequent noon or evening talks to the entire working force, or to groups, on maintenance of health and prevention of disease. Co-operation with the family physician of the employe in all cases in which the family physician prefers to retain control of the case.

II. TRAINED NURSE TO ASSIST THE PHYSICIAN.

Duties: To assist the physician during examinations; to visit and study the homes and living conditions of employes pronounced "tuberculous" or "predisposed"; to instruct in the fundamentals of right living and in the methods of care and prevention by actual demonstration in the employe's home; to gather in each individual case information essential to its right solution.

III. CLASSES OF CASES TO BE EXAMINED.

At a conference between the superintendent, physician and nurse it is agreed that the employes are to be watched for certain symptoms possibly indicative of tuberculous infection. A list of these symptoms is given in a card prepared for the guidance of superintendents and foremen, which is printed in full below:

DIRECTIONS TO FOREMEN OR OTHERS IN CHARGE OF EMPLOYEES.

Tuberculosis is curable—if discovered early.

Please therefore watch for the following cases:

1. Employes below weight, weak or anaemic.
2. Employes whose working power seems on the wane, without apparent cause.
3. Employes from houses where death from tuberculosis occurred, or where a case of tuberculosis exists, or employes who have been previously treated for tuberculosis.
4. Employes who have the following symptoms:
 - (1) Gradual loss of weight and strength.
 - (2) Fever in afternoon (even though slight).
 - (3) A lasting cough or cold.

- (4) Loss of appetite.
- (5) Hoarseness, continued or recurring.
- (6) Night sweats.
- (7) Spitting blood.
- (8) Tired all the time.

IV. EXAMINATION.

All suspicious cases to be submitted to thorough medical examination.

Each individual case is classified, (a) according to diagnosis; "tuberculous" or "non-tuberculous," "active" or "non-active," "open" or "closed"; (b) according to necessity of change of occupation or discontinuance of work; (c) according to need of hospital, sanatorium or home treatment. The solution of each case is considered after a full analysis of all its medical and social aspects.

V. SUPERVISION OF VARIOUS GROUPS OF CASES.

Close supervision to be maintained over (a) employees classed as "predisposed"; (b) employees returned to work, with disease "apparently cured" or "arrested" by institutional or home treatment; (c) employees taking "home treatment" under the direction of the company's physician.

SYSTEMATIC SURVEILLANCE OF HEALTH OF EMPLOYEES.

In the light of experience gained in the two years' campaign, the Committee on Factories of the Chicago Tuberculosis Institute advocates the following plan of systematic surveillance of health of employees:

1. Medical examination of all applicants for work or at least of those whose appearance or former or present history suggest the possibility of illness.
2. A more comprehensive and a more efficient medical examination of applicants for membership in employees' benefit associations, with gradual extension of said memberships to all employees.
3. Extension of the above described plan for the detection of tuberculosis to constitute a system of continuous surveillance of health of employees for the purpose of early detection of any developing illness.

CONCLUSION.

By presenting the results of the two years' campaign in Chicago for medical examination of employees and the results obtained in some of our large concerns, the Committee on Factories of the Chicago Tuberculosis Institute hopes to further advance the cause of health and efficiency of employees as two inseparable factors.

HEALTH COMMISSIONER YOUNG ON SCHOOL HYGIENE.

To the Editor,

June 4, 1913.

CHICAGO MEDICAL RECORDER,
Chicago, Illinois.

Dear Sir: In your May number Dr. Frank Allport in the course of an article (p. 273) on school hygiene makes the following statement:

"There is a difference of opinion as to whether medical school inspection should be accomplished under the authority of the Board of Health or the Board of Education. Such diverging views unfortunately frequently result in nothing being done at all. For instance, in Chicago, I have been endeavoring for years to secure an annual and systematic examination of the scholars' eyes, ears, noses and throat, but this beneficent movement has been prevented because the Superintendent of Schools and the Commissioner of Health could not get together as to whose shoulders the burden should fall upon. The former feels that the Board of Health should pay the bills and do the work, and declares it would be unjust to ask the teachers to make the examinations, ignoring the fact which is attested by thousands of doctors, teachers, etc., who are familiar with the work, that this little bit of time and trouble subsequently repays them many times over by revolutionizing the characters and teachability of many of their pupils. I have too much respect for the intelligence of our Superintendent of Schools to believe that this is the real reason for not giving the order that these examinations shall be made by the teachers. The Commissioner of Health on the other hand claims that tests of this kind should be made under the auspices of the Board of Education, and that his department has not the money to have either the medical inspectors or school nurses make the tests. And thus between this conflict of opinion the poor children, and one of the greatest cities of the world refuses to dispense justice to its school children."

I cannot imagine where Dr. Allport obtained his information as to the attitude of the Commissioner of Health in Chicago toward the medical inspection of school children. If there is one thing about which I have a definite opinion it is about the imperative necessity for the careful and detailed medical inspection of school children by the Health Department.

Any other system is in my opinion inherently wrong, since it leads to endless confusion and conflict of jurisdiction between those employed by the Board of Education to make the examinations for non-communicable diseases and those employed by the Health Department to detect and supervise the communicable diseases.

As a matter of fact, the Health Department has in recent years made many thousand physical examinations. During the summer of 1912 the division of child hygiene of the Bureau of Medical Inspection was entirely reorganized with a view to greatly extending the work during the session of 1912-13, and a force of one supervising inspector and ten inspectors was provided for the purpose of giving

their entire available time, three hours a day, to the duty of making detailed examinations of school children. This force was entirely independent and distinct from the regular force of health officers operating under the control of the division of contagious diseases in the Bureau of Medical Inspection. In addition to the above force, the school nurses were to be assigned to certain duties along the same lines. The division also embraced the dental inspection service.

Of course, with the small force available we did not expect to cover all the children in every grade. Our plan is to begin with the children in the first and second grades, the children just entering school, and later to cover the children in the eighth grade, or those just leaving school.

The idea was that in the first two grades we would discover those defects which, if uncorrected, would interfere with the child's progress; while by a study of the children of the eighth grade presenting defects we could obtain valuable data as to retardation effect of such defects.

The decision of the State Supreme Court which tied up the city's finances compelled the saving by the Health Department of thirty-two per cent of all the funds remaining unexpended September 1, 1912, and consequently the work had to be suspended.

The estimates for 1913 contemplated the assignment to school inspection exclusively of two supervising inspectors and twenty inspectors, but the continuing crisis in the finances of the city prevented the necessary appropriation.

The work of dental inspection was continued with a force consisting of the salaried supervising dentist and thirty-eight volunteer dental inspectors working under his control, and in co-operation with a force of ten dental surgeons working in ten school dental dispensaries, paid with funds supplied by Mr. Rosenwald and working under the control of the Public Service Committee of the Chicago Dental Society.

From January 1 to May 1 the inspectors have examined 14,992 children, discovered 13,491 children with dental defects, and the dispensaries performed 22,992 operations on children whose parents were unable to provide them with the necessary attention.

I have every reason to expect that when school opens in the fall of 1913 the department will be able to recommence the work of making detailed physical examination of school children along the lines determined upon when the division of child hygiene was organized.

Respectfully, G. B. YOUNG,
Commissioner of Health.

RELATING TO THE DEATH OF DR. JAMES A. EGAN.
RESOLUTIONS ADOPTED AT A SPECIAL MEETING OF
THE ILLINOIS STATE BOARD OF HEALTH, HELD
IN CHICAGO ON JUNE 7, 1913.

Whereas: Dr. James A. Egan, who departed this life on March 30, 1913, was a member of the State Board of Health of Illinois and its secretary continuously for upward of sixteen years, the following resolutions are hereby adopted:

Resolved, That in the death of Dr. Egan the state has lost its foremost advocate of disease prevention, of sanitary education and legislation, of higher medical education and of reciprocity between the states in medical practice;

Resolved, That the monthly bulletin inaugurated by Dr. Egan—a pioneer in its field—contained articles of unrivaled excellence upon the prevention of disease, the care of children, the care of the sick and other topics, which were almost wholly the product of his pen and were nation wide in their beneficial influence;

Resolved, That the vigilant zeal of Dr. Egan in his official capacity in eliminating epidemics by vaccination and the introduction of free antitoxin for the cure of diphtheria, in the instruction of undertakers and the regulation of the burial of the dead, in the instruction and regulation of the practice of midwives, and other means, has made human life in the State of Illinois more secure;

Resolved, That the labor of Dr. Egan in making life more secure has increased the population, increased human efficiency, has added to the value of the products of both farm and factory and has been an important factor in the education of the people;

Resolved, That the work of Dr. Egan in the strictness and broadening of the examinations for medical licensure, and his relentless enforcement of the inadequate laws against fraudulent and incompetent practitioners of medicine, has placed medical education, medical science and medical practice upon a more exalted plane than heretofore;

Resolved, That the incessant work of Dr. Egan, the absence of relaxing vacations have contributed to his untimely demise;

Resolved, That the undersigned members of the Board mourn the loss of an untiring fellow worker and a much loved comrade and friend;

Resolved, That these resolutions be spread upon the minutes of the Board and that a copy be sent to each of the surviving children.

GEORGE W. WEBSTER, M. D., President,
C. J. BOSWELL, M. D.,
RALPH E. NIEDRINGHAUS, M. D.,
WALTER R. SCHUSSLER, M. D.,
P. H. WESSEL, M. D.,
HENRY RICHINGS, M. D.,

Attest:

AMOS SAWYER, Acting Secretary.

MEMORIAL.

It is with profound sorrow that we record the death of Dr. James A. Egan, late secretary of the Illinois State Board of Health, on March 30, 1913, at his home in Springfield, Illinois.

Dr. Egan was born in Lowell, Massachusetts, April 6, 1859. He received his early education in the schools of Lowell, and in Trinity College, Ireland. After completing his course in the Irish institution, he returned to the United States where he pursued a course of study in a Yale Business College, from which institution he was graduated. He subsequently entered the regular army, serving for several years in the Quartermaster's Department. Becoming interested in the study of medicine, he matriculated at the Chicago Medical College, now the Northwestern University Medical School, from which institution he graduated in 1893. He engaged in the practice of medicine in Chicago immediately after his graduation, and in 1894 he became a sanitary inspector of the Chicago Health Department. Here he was rapidly promoted and was given charge of the department of disinfection at the time when formaldehyde was in its experimental stage, and also supervising the early public use of antitoxin in the cure and prevention of diphtheria.

In 1897, Dr. Egan was appointed a member of the Illinois State Board of Health, by Governor Tanner, largely on the recommendation of the late Dr. John B. Hamilton, former Surgeon General of the United States Public Health and Marine Hospital Service. He was elected secretary of the Board, served during the remainder of Governor Tanner's term and was reappointed by Governor Richard Yates, serving as a member and secretary throughout the four years of Governor Yates' administration, and also throughout the eight years of Governor Deneen's administration, and three months of Governor Dunne's administration.

Dr. Egan held the secretaryship of this Board for nearly sixteen years. During that period many important advances have been made in Illinois in the prevention of disease, the raising and improving of medical educational standards, suppressing fraudulent and low grade medical schools, the securing of desirable and the defeat of undesirable legislation affecting the welfare of the people and the medical profession, in all of which is plainly seen the untiring energy, loyal devotion and the guiding hand and brain of Dr. Egan.

Among the more important accomplishments of the State Board of Health during his long administration, and especially since the enactment of the present Medical Practice Act, July 1, 1899, the following are worthy of permanent record and are achievements in which the people, the profession and the board have just grounds for pride:

1. The enactment of the Medical Practice Act in 1899.
2. The abolishment of the "diploma mills" of Chicago, which had caused such chagrin and mortification to the people of the State of Illinois, and which had caused the London Lancet to remark that Chicago conferred degrees with the same ease and facility with which she killed hogs.
3. The enactment of a law permitting the summary dissolution of medical colleges violating the terms of their charters.
4. The act regulating the practice of medicine is, we believe, better enforced in relation to the practice of unlicensed physicians, midwives, itinerant vendors, while in force, and other practitioners, than in any other state in the Union.
5. The enactment of a law amending the 1899 medical practice act so as to provide for a higher standard of preliminary requirements, for reciprocity, the establishment of improved methods of examination, whereby it is impossible for one physician to take the examination for another, and whereby it is difficult, if not impossible, for a candidate to use unfair methods in the examination.
6. The enforcement of standards of preliminary education in medical colleges.
7. The allowance made to physicians for years of practice, thus doing away with the injustice of requiring the graduate of 1890 and the graduate of 1910 to be governed by the same requirements.
8. The successful opposition in the General Assembly of measures designed, not only to jeopardize the interests of the lives and health of the people of the state, but to interfere with the rights and privileges of licensed physicians who have qualified under the various medical practice acts of Illinois.

9. The enactment, in 1899, of laws whereby osteopaths who are properly qualified, are given an opportunity to take an examination, and to receive a certificate if they pass the examination, thus preventing the creation of a state board of osteopathic examiners, or the recognition of osteopaths by the State of Illinois, or the placing of an osteopath on the State Board of Health, as has been done in Kentucky and New York, or upon the State Board of Medical Examiners, as has been done in several of the states of the Union.

10. The adoption of rules and regulations governing the transportation of the dead.

11. The adoption of rules and regulations requiring the examination and licensure of embalmers and the subsequent enactment, in 1905, of a law to this effect.

12. The supervision of the cubic air space and certain general sanitary conditions in lodging houses, taverns, inns and hotels in cities of 100,000 and over.

13. The enactment, in 1901, of a law requiring the reports of births and deaths.

14. The enactment, in 1903, of a similar law, minus the burial permit feature, when the 1901 act was repealed.

15. The maintenance of a department of vital statistics for the registration of all births, and deaths reported to the State Board of Health, and for the compilation of statistical data essential to the proper and intelligent supervision of the public health.

16. The obtaining of a material increase in the appropriations of the State Board of Health. Here it may be noted that when Dr. Egan came on the State Board of Health in 1897, the biennial appropriation of the board amounted to \$28,000. In 1907 this appropriation was increased to \$110,200.

17. The securing of an appropriation for the care of indigent persons bitten by rabid animals.

18. The securing of an appropriation for the free distribution of diphtheria antitoxin, for the purpose of preventing the spread of a dangerously communicable disease.

19. The sanitary investigations of the water supplies of the Illinois, Mississippi and Missouri rivers, conducted (1899-01) prior to and after the opening of the Chicago Drainage Canal. The Chicago Chronicle said that this work was certainly more interesting, and probably more important than any heretofore achieved by the Board, and the Record-Herald stated that the Board had "furnished the most conclusive testimony in favor of the contention of Illinois

in the Supreme Court of the United States that had ever been presented."

20. The chemical and bacteriological investigations of the water supplies of every city in the State of Illinois.

21. The prompt suppression of the epidemics of smallpox which have occurred in the state since 1898.

22. The establishment of a system of sanitary inspection whereby any physician in doubt as to the diagnosis of a supposedly communicable disease in his practice, or any municipality or township desiring assistance or counsel from the State Board of Health, may obtain the services of a trained sanitarian, within a few hours, or as fast as the train will take him there. Here we might refer to the enactment, in 1901, at the instance of the State Board of Health, of a law creating boards of health in townships and counties. Previous to 1901, there were no legally constituted boards of health in townships or counties. Dr. Egan made an attempt to remedy this defect in the law in 1899, and got the bill through the Senate and to the third reading in the House, but unfortunately it failed to come up on the last evening of the session in the House.

23. The prompt assistance rendered to municipalities and townships whenever the State Board of Health is called upon for such assistance.

24. The establishment of a laboratory in 1904.

25. The campaign of education and the practical work done by the board in the prevention and suppression of pulmonary consumption. Much might properly be said about the circular issued by the Illinois State Board of Health on the cause and prevention of consumption, which is now in its eighth edition, having been originally issued in 1904. But space does not permit more than a brief reference to this circular, which has been favorably commented upon at home and abroad, and which has been accorded the highest praise by medical journals. In 1908 the Board of Education of the state of Massachusetts wrote to the Illinois State Board of Health, asking for the price of its circular on the cause and prevention of consumption, in order that it might be distributed in the state of Massachusetts, the Board of Health of Massachusetts not publishing a circular upon this disease.

26. We might refer also to the various circulars issued by the Illinois State Board of Health. These circulars are issued in editions of sufficient numbers to meet the requirements for reasonable periods of time, and are frequently revised to keep pace with the growing

knowledge on the various subjects. They are, of course, widely distributed.

27. The publication of a monthly bulletin through which the members of the medical profession are kept advised of the work done by the State Board of Health, and are not required to wait as in many states for the publication of an annual report, containing the information desired,—which report is frequently published a year or more after the date it is supposed to cover.

28. The prompt establishment and maintenance of inspection and quarantine service in Cairo in 1905, when yellow fever threatened southern Illinois.

29. The prompt investigation into the prevalence of pellagra in Illinois, in 1909, and the publication directly afterwards, of three bulletins on the subject, reports which have received praise from medical journals, including the *London Lancet*.

Dr. Egan was a member of Saint Paul's Episcopal Church, Springfield, the American Medical Association, the Illinois State Medical Society, the Sangamon County Medical Society, the American Public Health Association, First Lieutenant in the Medical Reserve Corps of the United States Army, and was also a 32d degree Mason and a Knight Templar.

In 1887, he came to Chicago, where he married Miss Lillian Beatrice Skidmore in 1889. Mrs. Egan died in January, 1910. He is survived by three sons, Ellis P., Harold H., and Sidney B., and two daughters, the Misses Marian Grace and Dorothy Alice Egan, and one sister, Mrs. H. V. Hunt of Peabody, Mass.

We believe that the living will carry forward the work which the dead man loved and to which he devoted his life.

THE CHICAGO MEDICAL RECORDER

AND
JOURNAL OF THE MEDICO-LEGAL SOCIETY

EDITORIAL BOARD

DR. E. W. ANDREWS	DR. FRANKLIN H. MARTIN.
DR. FRANK T. ANDREWS.	DR. JOSEPH MATTESON.
DR. CHARLES C. BEERY.	DR. FREDERICK MENGE.
DR. R. W. BISHOP.	DR. THOS. J. WATKINS.
DR. JAMES BURRY.	DR. SAMUEL C. PLUMMER.
DR. HENRY T. BYFORD.	DR. ARTHUR R. REYNOLDS.
DR. FRANK CARY.	DR. HOMER M. THOMAS
DR. E. J. DOERING.	DR. H. H. FROTHINGHAM.
DR. JUNIUS C. HOAG.	DR. OTTO L. SCHMIDT.
DR. FRANK S. JOHNSON.	DR. D. A. K. STEELE.

DR. A. CHURCH.

COMMITTEE ON PUBLICATION

E. J. DOERING	A. R. REYNOLDS	HENRY T. BYFORD
---------------	----------------	-----------------

Vol. XXXV. No 7.	PUBLISHED MONTHLY. Pullman Building	SINGLE COPIES 20 CTS.
NEW SERIES.	Chicago, Ill., July 15, 1913.	\$1 A YEAR IN ADVANCE.

Editorial.

THE HOSPITAL*

BY ARTHUR M. CORWIN, A. M., M. D.

In Ancient Rome a guest and host as well
 Was *hospes*, *fragrant* word, from which we get
 The modern terms hospice and hospital,
 To which the stranger goes with welcome met,
 And finds a refuge and a sure hotel
 For maladies that all mankind beset.
 "Hotel Dieu" in Paris by the Seine
 Is witness eloquent of what we say,
 The gods were mindful of our human pain
 Of yore, and still indeed they are today.
 Four thousand years B. C. the seeds were sown
 Of hospitals and schools of medicine,
 As told in hoary records writ on stone
 By Egypt's drifting desert sands shut in.

*Dedicated to the New West Side Hospital, 1844 W. Harrison. street,
 Chicago, Ill., June, 1913 .

Then, all infirm and injured folk were laid
For healing influence, divinely won,
Beneath the sombre, kindly, cooling shade
Of temples reared to Saturn, Coelus' son,
Whose priests, were skilled in clinic art benign
Than common men, with learning more occult,
Bid ailing ones to come, their wills resign,
And eke their gold, and for their griefs consult.

For ills acute, and accidents that cry
Aloud for instant care, without delay,
To hospitals the ambulance must fly;
While chronic woes, of flesh and matter gray,
And poverty that is to sickness nigh,
Asylums seek, and wide prepared the way
To house of alms, the home of charity.

"Hotel Dieu," God's house, shall long abide—
We'll make the Gallic sentiment our own,
Yet keep the label that we hold with pride,
On this fair house of brick and steel and stone.
For titles foreign-made we have no need,
But heaven-born truth and sentiment are free
To all mankind of various blood and creed,
And shall be so to all eternity.

To compass health full many a means we seek
Through herbs and minerals, and serums, too,
Aseptic tools and foods and drinks unique,
And lab'ratory tests, specific new;
Empiric some, evolved by accident,
And some from painful labors, shall endure,
Of scientists who dared experiment,
Lord Lister, Jenner, Roentgen, Koch, Pasteur.
But one compounded remedy we know,
Though overlooked in therapeutic lore,—
A cheerful doctor, interne, nurse, will go
A long way toward effecting speedy cure
In every case. As this they understand
Our "powers that be" would promulgate this truth
Through all of us, to pass from hand to hand—
Not this, "An eye for an eye and tooth for tooth";
But wholesome, hopeful, kindly sentiment
Of each toward all, an attitude at length
Of helpfulness, a wish with shoulders bent
To lend another's load our virile strength.
Of fitness for the staff this is the test
Required of all, of doctor, interne, nurse.
Of skill there's none too good, we want the best;
But skill of head and hand will not 'imburse
For lack of heart more dear than all the rest.

The doctor and the nurse with records fine,
 Upright and kind, well-versed in healing's art,
 In hospitals of most approved design
 And management—these are the chiefest part
 Of Aesculapian practice up to date.
 A combination such as this we build,
 And, building thus, 'tis guaranteed by Fate
 That all our rooms with patients shall be filled.
 'Tis here that surgery of highest class
 And diagnostic acumen shall live,
 And specialists of noblest type shall mass
 Their effort and their best endeavor give.
 Our wards and private rooms, with sunshine filled
 And freshest air, shall breathe an atmosphere
 Of home. And food, prepared by those well skilled,
 With cultured taste, shall add substantial cheer
 To all our guests; yea, more—in every room
 Fair optimism's smiling face and voice,
 Inspiring hope, shall drive away dull gloom
 And make each sober, heavy heart rejoice.

To sick men here we rear a monument—
 No shaft of granite, gray, or slab of white
 To mark the doleful spot where love's lament
 Is sung in requiem to gath'ring night.
 Memorial is this of nobler brand
 Than tombs, within which lifeless dust endures;
 For to the living here its walls shall stand
 A monumental hall of famous cures.
 The sick man! Who more worthy of our song?
 In robust health, disdaining sympathy;
 When ill, with vital functions acting wrong,
 No infant more dependent than he.
 Squandered his revenue of mental power,
 Bankrupt in energy of body worse,
 His neurons weak, his disposition sour,
 His days a bore, his nights a living curse;
 What wonder that the victim of disease
 Should need some balm more practical than prayers
 From racking pain to give him lasting ease;
 More potent, too, than patent drugs and wares
 Of advertising quacks, and passes made
 By smooth magnetic fakes who fortunes tell
 From skiagraphs of pocketbooks, X-rayed,
 And guarantees to make their patients well?

But tho' such dangers make an easy prey
 Of mortals ruled by pathologic fear,
 A nobler God than Saturn guards their way,
 A kinder hand than Saturn's priest's is near.

And so, to answer fair this need of men,
The West Side Hospital we build anew,
And fling its ample portals wide again,
And fling abroad a welcome message, too.

MEDICAL SCHOOL INSPECTION.

Dr. Frank Allport, in the May RECORDER, has discussed the care and physical needs of school children in an interesting, sane and forceful manner. The paper should be read by all those interested in children and that means that the ideas there so ably set forth should receive universal attention.

The physical welfare of children is of first importance. Their education is secondary. Some sort of medical inspection is most useful and is becoming imperative. A good start has been made in many places but only enough to show the great good that can be done to the little ones by this means.

The methods of inspection should be standardized in every state and the whole question furthered by all those who can help the cause along and especially by physicians and teachers.

The underlying purpose of Dr. Allport's paper is a constructive one and not in any way intended to be fault finding. Such criticisms as he made of existing conditions are only for the purpose of arousing an increased interest in the work.

GARBAGE DISPOSAL.

Since the ancient days when the wastes of Jerusalem were burned at Gehenna on the outskirts of that city, and possibly before, the question of the ultimate and sanitary disposition of city garbage has been one of the most difficult problems to solve.

At the present time there are but two methods seriously considered, incineration and reduction. Either, with one exception, is satisfactory from a strictly sanitary point of view when properly conducted. The exception to both methods comes from the concentration of the garbage at one or more points. Those living or doing business in the vicinity naturally object to a steady stream of unsightly and often unsavory wagons driving by their premises. In

time the unavoidable drip around the works is liable to become a nuisance as the premises become saturated with it.

Incineration is successfully done in London, England, notably at Shoreditch, where the incinerator is in connection with a power producing plant and the heat of the burning waste is utilized as auxiliary to the main plant. In this plant all waste is burned, ashes, garbage proper, paper, wood boxes, baskets, etc. The household ashes of London comes largely from coal burned in grates and contains more unconsumed coal particles than are found in ashes from stores and furnaces and has more heat producing power than the ashes from the household of an American city. There is also noticeably less waste—scraps of meat and vegetables—in London garbage than there is in that of the more bountiful American household. For these reasons there cannot be the same utility result from the burning in an American plant.

Reduction consists of cooking the garbage in a closed tank and extracting the grease which has a value, and the tankage after it is dried makes an excellent base for the manufacture of a land fertilizer. Only pure garbage can be used successfully by this process. As American garbage is rich in grease the reduction process is more practical in an American city than it would be in a European city. Selected garbage such as is yielded by hotels and restaurants now gives a profitable return by the reduction plan after all expense is paid including its collection and hauling.

In the minds of many who have studied the question the reduction process is the most desirable viewed from the cost side of the question.

Whichever plan is used there should be three divisions made by the householder,—ashes, garbage, and all combustible waste such as paper, wood, rags, etc. The last class should be destroyed upon the premises. The increasing use of gas in the kitchen makes this more difficult especially in the summer time, but there can always be found a stove or a furnace in which it may be burned.

In small communities garbage has a value in a feed for swine and poultry, but this plan is out of the question in cities except to a limited degree in their suburbs.

Book Reviews

HEART DISEASE, BLOOD PRESSURE AND THE NAUHEIM TREATMENT.

Louis Faugeres Pishop, M. D., A. M., Clinical Professor on Heart Disease and Circulatory Disease, Fordham University School of Medicine, New York City, etc. Fourth enlarged and revised edition. Illustrated. Price, \$3.00 net; by mail, \$3.15. Funk & Wagnalls Company, publishers, New York.

Anyone contemplating a Nauheim cure for his patients here or abroad, should carefully read this book, the best one written on this subject. It is intended for the general practitioner, clear, concise and sensible and is full of sound advice and good judgment.

This edition has an additional chapter on "The Construction and Use of Blood Pressure Instruments." To avoid the necessity of our readers being compelled to take a Nauheim cure, we desire to quote the author's sound advice as follows: "High pressure cases are often met with in men who literally lead a life of high pressure. The most foolish thing that any successful man can do is to work throughout the year without an adequate vacation, and it is a rather curious practical observation, even among professional men, that, in the long run, the actual income of the year is not diminished by taking several months of travel and recreation. The improved morale, the wider view of the world, and the coming in contact with new people more than compensates for the actual loss of income during the period of cessation of work. . . In view of the progress of circulatory degeneration with the advance of years, the matter of rest and recreation becomes one of evident importance. Unfortunately if the pursuit of pleasure be put off too long the faculty of enjoyment is lost." We trust these golden words of wisdom will not be without results.

DISEASES OF THE STOMACH, INCLUDING DIETETIC AND MEDICINAL TREATMENT. By George Roe Lockwood, M. D., Professor of Clinical Medicine in the Columbia University; Attending Physician to Bellevue Hospital, New York. In one octavo volume of 624 pages, with 126 engravings and 15 plates. Cloth, \$5.50 net. Lea & Febiger, Philadelphia and New York, 1913.

We have many excellent treatises on stomach diseases but nevertheless we welcome this latest addition to our literature on this subject.

The book represents, in the first place, the author's personal ex-

perience. He recommends what he knows is of service. He pays special attention to the diet, so frequently neglected in special hand books of this kind and finally the book is fully up to date and eminently practical.

In reading the chapter on cancer we note that the author does not agree with the "previous ulcer theory." In twenty years the author has noted that only in three or four per cent of his ulcer cases has malignancy supervened. Also as relates to previous indigestion, he states that one of the most striking phenomenon of malignant disease of the stomach is the sudden occurrence of dyspepsia in those of cancer age who have been previously free from indigestion. Every one will learn much from reading this book, and we predict for this excellent book a widespread popularity. Like all of Lea & Febiger's books the mechanical make-up is beyond criticism. Type, drawings, plates and print perfect.

MALINGERING AND FEIGNED SICKNESS. By Sir John Collie, M. D., J. P., Medical Examiner, London County Council; Chief Medical Officer, Metropolitan Water Board; Consulting Medical Examiner to the Shipping Federation, etc., assisted by Arthur H. Spicer, M. B., B. S., Lond., D. P. H. Illustrated. Longmans, Green & Co., Fourth Avenue and Thirtieth Street, New York; London, Edward Arnold.

There is no subject of greater or more rapidly growing importance than that of claims for damages by accident. The recently enacted laws in this country regarding the liability of employers is going to raise, for us, the situation which has been present in England and on the continent for a considerable time.

The experience of Sir John Collie is admirably set forth in the present volume which is commended to all who are interested in the subject. The various methods which he has found it expedient to adopt in establishing the actual condition of claimants who had a motive for misstating their symptoms, either to mislead others or themselves is highly instructive.

Judging from his statements, the practice of malingering is rapidly growing among those who have been subjected to injury during the course of their occupational pursuits, and he even goes to the point of urging that penalty for malingering be established by law, that when malingering is proven in court the culprit should be prosecuted the same as for perjury.

The relation of the attending physician, of club doctors, of em-

ployers' doctors and the special examining physician are carefully considered and the methods of examination are gone into at length. These, by force of circumstances, are frequently different from those which are of common application in routine practice.

Owing to the alleged disorders of the nervous system, this subject is given special importance. The examination of the eye, ear, back, upper and lower extremities, etc., are all given their due amount of space and importance. The author takes the modern and only tenable view of the so-called traumatic neuroses and we see nothing of railway spine, Erickson's disease, spinal irritation and spinal concussion in these pages.

Of course, the application of the book is directly to the conditions in Great Britain, but, in so far as pertains to false claims and malingering, it is of universal significance. Withal, it is written in a kindly spirit and in a very judicial and fair minded manner.

A. CHURCH.

ELECTRICITY IN DISEASES OF THE EYE, EAR, NOSE AND THROAT.

With Illustrations. By W. Franklin Coleman, M. D., M. R. C. S., Ex-President of and Professor of Ophthalmology in the Post-Graduate Medical School of Chicago. Ex-President of the Ophthalmological Society of Chicago. Professor of Ophthalmology in the Illinois School of Electro-Therapeutics, etc. The Courier-Herald Press, 1912.

An examination of this work leaves a feeling of satisfaction which ordinarily is not the case when confronted with books upon electro-therapeutical subjects. In the first place, the author has given in the most readable and comprehensive form a few chapters to the subject of the physics of electricity, without a knowledge of which no one should undertake any extensive electrical treatments. Nowhere else can one find this subject so admirably presented.

The variations of electrical administration which have been developed of late years result in the production of a book much broader in its scope than the works on electro-therapeutics formerly presented. In this work all the ordinary modes of electrical application and some of the extraordinary ones, will be found carefully presented.

One does not get the impression that the author considers electricity in its numerous modalities as a panacea. A recognition of its limitations is one of the wholesome features of the book.

It is particularly in regard to the chapters on electricity in diseases of the eye that the book is valuable. Some of the results ob-

tained by the author and results reported by others, according to his quotations, are little less than startling. Benefit in optic atrophy, in 66 per cent of his cases, gives one occasion for thought.

The book ends with a fair bibliography and index.

Every specialist in the field covered by the book will doubtless be glad to have it.

THE FIRST SIGNS OF INSANITY, THEIR PREVENTION AND TREATMENT. By Bernard Hollander, M. D., author of "The Mental Functions of the Brain," "Scientific Phrenology," "Hypnotism and Suggestion," "The Mental Symptoms of Brain Diseases," etc. Funk & Wagnalls Company, New York, 1913. Price, \$3.25 net.

The author attempts, in this book, to present the subject of insanity from the every day standpoint of the general practitioner who sees the incipient stages of insanity before the condition has become sufficiently pronounced to require hospital management. He somewhat readily concludes that most of our descriptions have been made by asylum physicians and based almost entirely upon the manifestations of full fledged mental diseases.

The book is also written in a manner to meet the ready comprehension of the layman and with particular interest to the lawyer, the sociologist and anyone who might be interested in such subjects. A careful perusal of the book enables one to see that the author has quite practically met the requirements of his self-imposed task. His classification of insanity is quite up to the modern standard and the varieties of this terrible affliction are presented with sufficient fullness to meet the needs of an introductory book of this character.

Some of the author's statements are, perhaps, open to the criticism of being extreme. For instance, under the head of the "Surgical Treatment of Some Forms of Insanity," he refers to the cure of thirty cases of mania and homicidal insanity, thirty cases of melancholia, several cases of delusional insanity, as well as cases of hypomania, moral insanity, general paralysis of the insane and even dementia." The alleged surgical cure of dementia and general paralysis of the insane, while devoutly to be desired, requires an abundance of proof before the trained alienist can accept the assertion.

The author believes in the restriction of marriage of insane, the sterilization of the degenerate and the segregation of the feeble minded as righteous preventive medicine.

The book seems to be a companion piece to several others by the same author, to which frequent cross reference is made in the text.

A. CHURCH.

THE A, B, C AND X, Y, Z OF BEE CULTURE. A cyclopedia of Everything Pertaining to the Care of the Honey-Bee; Bees, Hives, Honey, Implements, Honey-Plants, etc. Facts Gleaned from the Experience of Thousands of Beekeepers, and Afterwards Verified in Our Apiary. By A. I. and E. R. Root, 146th Thousand. Medina, Ohio, the A. I. Root Company, 1913. Postpaid, \$2.00.

This book is very well named, giving all the necessary information required by the amateur, as well as that required by the professional beekeeper.

The 1913 edition is splendidly illustrated, contains 750 pages with index. Many of our readers are, no doubt, familiar with the interesting series of articles by Dr. J. M. Francis on "Keeping Bees for Pleasure and Profit," which have appeared in the recent numbers of *Suburban Life*. Dr. Francis shows the city man that he can well afford to keep bees, that it is reasonably profitable in a material way and yields magnificent returns in mental recreation.

"There is not a city in America, without its bees, they can be located anywhere within two miles of the open country or suburban districts which offer growths of weeds, wild plants or crops of any kind which produce flowers. The writer's two colonies of bees from which he obtained 150 pounds of honey were located in the middle of a city back yard, fifty feet wide, in the center of the block."

We urge all city and suburban physicians to send to the A. I. Root Company and obtain this book. A pleasant, healthful hobby is sure to "result" from the above prescription.

A COURSE IN NORMAL HISTOLOGY. A guide for practical instruction in histology and microscopic anatomy by Rudolf Krause, A. O. Professor of Anatomy at the University of Berlin. Translation from the German by Philipp J. R. Schmahl, M. D., New York. With 30 illustrations in text and 208 colored pictures, arranged on 98 plates after the original drawings by the author. Part II, New York: Rebman Company, 1123 Broadway. Price, \$5.50.

Parts I and II. This is a magnificent work by the eminent Prof. Krause of the University of Berlin. Part I is a clear, concise and authoritative guide to the technique of microscopy and is of value to every one interested in microscopic work without any restriction as to medicine and teaches all the methods recommended in preparing a microscopical specimen.

Volume II deals solely with histology as relates to medicine. The

diagrams are simply splendid and a complete text accompanies each one giving the technique and a description of the specimen.

No pains have been spared to make this a master work in every sense and we hope to find it represented in the requirements of every college in the land. Our thanks are due to the able translator and the publishers.

STERILITY IN THE MALE AND FEMALE AND ITS TREATMENT. By Max Hühner, M. D., New York, Chief Genito-Urinary Department, Harlem Hospital Dispensary, New York City; formerly Attending Genito-Urinary Surgeon, Bellevue Hospital, Out-Patient Department and Assistant Gynecologist, Mount Sinai Hospital Dispensary, New York City. Member American Urological Association, American Medical Association, Fellow of the New York Academy of Medicine, etc. New York: Rebman Company, Herald Square Building, 141-145 West 36th Street. Price, \$2.00.

The author, points out several defects in our usual method of determining where the fault lies in cases of sterility and gives his system of making a preoperative diagnosis. Also his method of treatment in certain cases of injecting the aspirated testicular fluid directly into the cervix of the wife, either with or without the addition of prostatic fluid.

We think too much space is taken up in giving the examinations of nearly 500 cases on account of their great similarity. However, the book makes interesting reading for those interested in this subject.

SEX, ITS ORIGIN AND DETERMINATION. A study of the metabolic cycle and its influence in the origin and determination of sex, the course of acute disease, parturition, etc., by Thomas E. Reed, M. D., Middletown, Ohio, U. S. A. New York: Rebman Company, Herald Square Building, 141-145 West 36th Street. Price, \$3.00.

An interesting study of the determination of sex. The author reviews the different theories of sex determination and believes he has contributed to the solution by the study of the manifestations of lunar rhythms in labor, in infectious diseases, their influence on births, deaths, surgical operations, menstruation, gestation and the determination of sex.

THERAPEUTICS OF THE GASTRO-INTESTINAL TRACT. By Dr. Carl Wegele, adapted and edited, with additions on the diagnosis of the diseases of the esophagus; diagnosis of the diseases of the gastro-intestinal tract; duodenal tube and its uses; diseases of the pancreas, and X-ray examinations of the gastro-intestinal tract by Maurice H. Gross, M. D., attending gastro-enterologist to the Har Moriah Hospital and I. W. Held, M. D., attending physician to the Har Moriah Hospital, with 52 illustrations in the text and two figures in colors on one plate. New York; Rebman Company, Herald Square Building, 141-145 West 36th Street. Price. \$3.00.

This is a practical work and is devoted to the dietetic, physical and hygienic treatment of gastro-intestinal disease. It is especially intended for and useful to the general practitioner.

The chapters on general diagnosis, general treatment, physical and medicinal treatment are of special interest.

In addition to the various chapters on stomach and intestinal diseases, we find several interesting chapters on diseases of the pancreas and X-ray diagnosis of the gastro-intestinal tract, the work of the translators who have enhanced the value of the book by these and other numerous additions.

We cordially recommend this book to our readers.

DISEASES OF THE STOMACH. With Special Reference to Treatment. By Charles D. Aaron, Sc. D., M. D., Professor of Gastroenterology and Adjunct Professor of Dietetics in the Detroit College of Medicine; Professor of Diseases of the Stomach and Intestines in the Detroit Post-Graduate School of Medicine, etc. Octavo, 555 pages, with 42 illustrations and 21 plates. Cloth, \$4.75, net. Lea & Febiger, Philadelphia and New York, 1911.

This is one of the books which deserves unqualified approval from start to finish. It is a thorough, most efficient and up-to-date exponent of all that pertains to stomach affections. It is written in a clear and concise manner. Instills no doubt as to what the author recommends and is practical throughout. We commend it most highly to every practitioner of medicine.

Of especial interest and help are the chapters on examination of the stomach contents, the many dietary lists and regulations for various diseases, the chapters on medications, indications for surgical intervention, especially in carcinoma and a most instructive chapter

on alterations in position of abdominal organs. The various neuroses are most ably handled. In short, this is a book the reader should have in his library.

OPHTHALMOSCOPIC DIAGNOSIS, based on typical pictures of the fundus of the eye with special reference to the needs of general practitioners and students, by Dr. C. Adam, assistant at the Kgl. Univ. Augenlinik, Berlin. Translated by Matthias Lanckton Foster, M. D., Ophthalmic Surgeon to the New Rochelle Hospital; member of the American Ophthalmological Society; member of the American Academy of Ophthalmology and Oto-Laryngology. With 86 colored pictures on 48 plates and 18 illustrations in the text. The Medical Art Agency, Herald Square Building, 141-145 West 36th Street, New York City. Rebman Company, sole agents. Price, \$6.00.

This is simply a work of art and must be seen to be appreciated. We have here 86 colored pictures on 48 plates, prepared with the greatest possible care with every detail relating to accuracy and correctness.

It is impossible to commend this work too highly. It reflects the greatest possible credit on the distinguished author and we are indebted to the Medical Art Agency and the Rebman Company for introducing it to the profession here.

It is dedicated to the memory of Julius V. Michel to whom the author gives credit for its conception. The text is concise and admirable and special attention has been given in the book to those affections of the eyes which relate to general diseases. We trust that due recognition will be at once accorded this splendid work by the profession.

FROM CONTENTED COWS.

A Phrase Founded Upon Real Conditions.*

By L. R. HARDENBERGH,
Vice-President Pacific Coast Condensed Milk Company.

"From Contented Cows," is a phrase that has truthfully served to link the great dairying districts of the Pacific Northwest with a food staple whose sales territory covers over half the world. The originator of that slogan has grouped in three simple words the real reason for the fame of this district as a productive center of dairy products. "Contented Cows," green pastures the year 'round, an abundance of crystal-clear water, ample grazing area, mild, temperate, and even climate, splendid transportation facilities, and the highest quality of pure, rich, milk in ample quantity, are the important factors in determining the location here of ten large condenseries of the Pacific Coast Condensed Milk Company.

For upwards of thirteen years, Carnation Milk has been identified with the promotion of the dairying interests of the Pacific Northwest, and from the very date of its introduction, the use and the distribution of this product have kept pace with the tremendous advances of this great section.

Carnation Milk has become one of the world's food staples. Its permanent adoption by housewives everywhere and its ever-increasing demand are not the result of mere accident, but are attributed solely to the merit of the article itself and to the great forethought exercised to maintain its uniform standard of excellence.

The making and marketing of Carnation Milk, the early struggles of its originator to secure recognition, is one of the romances of mod-

*We have reprinted this article from Harper's Weekly for the benefit of our readers. Physicians have done an enormous amount of good in demanding certified and pasteurized milk. Another product, evaporated milk, we think of equal importance, being obtainable when the others are not.

During the summer months thousands of visitors will go to camps and resorts where the milk supply is anything but good. Boiling or pasteurizing raw milk or purchasing tins of evaporated milk is the only safe method to adopt, as we all know, but no hotel, camp or boarding house is going to the trouble of boiling or pasteurizing milk for their guests and, therefore, it is imperative for families to insist on using evaporated milk to be on the safe side.

The Health Department of Chicago offers to vaccinate one thousand people, free of charge, against typhoid. Many families, especially those going to the country, have been vaccinated. Thousands of families have not. The use of pure water and evaporated milk will be equally effective in their case.—Ed.

ern business. The prejudices and obstacles that had to be overcome and surmounted are a source of inspiration to every man and woman who has to do with its production and distribution.

To produce by evaporation and sterilization a milk that would rival raw milk in flavor and deliciousness, and in addition one that would surpass ordinary milk in richness, purity, and keeping qualities; to turn out in a convenient form a product that would ultimately supplant raw milk for every household purpose—was the task that Mr. E. A. Stuart, a successful wholesale grocer of Los Angeles, set for himself a little over thirteen years ago.

To condense and put out a high quality of evaporated milk it is necessary to have a high quality of milk to start with. It has been proven that the most modern equipped and hygienic condenseries cannot add quality or flavor to a low grade of raw milk. Therefore, the first question in Mr. Stuart's problem was to locate his condenseries where the best raw milk was to be obtained in quantity sufficient to meet the increase in demand. To this end, every important dairying district in the country was carefully studied, and quality and production test made and considered to determine the source of the best milk supply.

After extensive investigation, the State of Washington seemed to afford the most ideal conditions, and the first condensery was erected at Kent, a village adjacent to Seattle. While the first few years, the new industry presented new problems and new angles to be met and understood, it was not until the production had grown larger and a number of additional condenseries operated both in Washington and Oregon that the real problems of the growing business presented themselves.

To properly understand some of these problems, it is necessary to know that fresh milk is one of the most difficult articles to handle. In the first place, to secure good, clean, rich milk is a constant fight and a constant expense. To handle the milk and insure its purity and quality from the cow to the consumer was one of the problems that Mr. Stuart and his associates had to solve, and solve rightly, in order to keep in business. It was found that to put out good milk, you must begin with the cow; and, while the dairying districts produced and maintained the finest milch cattle in the country, it was necessary to exercise a most complete and rigorous system of supervision and inspection, in order that the farmers themselves might be enabled to meet the high standards demanded by the milk experts at the various "Carnation" condenseries.

To this end, trained dairymen, inspectors, and veterinarians were employed to assist the farmers and to instruct them in every new and scientific method for the selection, breeding, housing, and care of their herds, and what is equally important, they are instructed in the handling and transportation of the milk from the cow to the condenseries. For example, the cans in which the milk is transported are subject to daily inspection and are steam-cleaned at the condenseries before they are returned to the farmers.

Before attempting to create a world market for Carnation Milk, it was necessary to work out the points of supply and manufacture to the end that when distribution was once accomplished, the product would be not only meritorious, but it must be uniform day after day, and year after year. The experiments were all made early in the first factory. The means and methods of condensing, evaporating, sterilizing, packing, and shipping were all determined upon after exhaustive tests; and, as each additional factory was erected, it found its problems all worked out to the surety of quality, and the cost of production accurately gauged in advance.

In the condensing of Carnation Milk, nothing is taken for granted. There is no guesswork. Tests and scientific safeguards follow the raw milk from the moment it is received at the factory until it reaches the kitchen of the housewife. The raw milk is bought and paid for according to tests: the better the milk, the better the price to the farmer. Each factory has its trained milk-tasters, and they follow each batch of milk through every single process and subject it to rigorous and exacting tests until it leaves the loading platform.

If you will take up a can of Carnation Milk, you will find that it is stamped with its own serial number. This enables the general office to know the history of every single can of milk on the market.

It is interesting to note the laboratory-like cleanliness that prevails in each of the condenseries. All vats, pipes, machinery, and equipment are cleaned and sterilized with live steam twice each day. Every process must not only be accurate, but it must be scrupulously clean. Upon the unending exactness and the perfect system of handling depends the success of Carnation Milk in the markets of the world.

Having successfully met and overcome the difficulties of uniform production, Mr. Stuart next turned his mind to the important problem of distribution. He knew his product; he had attended every stage of its inception and the process of making it a standard in every essential. His task was now to overcome the almost universal preju-

dice against canned or condensed milks, and to acquaint the consumer not only with the quality of his product, but to the advantages of using every day in the year a milk possessing all the elements of the purest and richest cow's milk without any of the dangers and uncertainties of the ordinary milk supply.

The public had long looked upon canned milk as merely a substitute—a sort of emergency measure. They were not aware that evaporated milk was not a manufactured substance, but merely the best and purest cow's milk with part of the water extracted; merely rich, fine milk evaporated to the consistency of cream, then sealed and sterilized.

To force home the advantages of evaporated milk—to create an ideal demand—was the next of Mr. Stuart's problems. This meant a campaign of education, and education costs money. This man knew that he held the method of supplying the greatest and most important of food staples. He knew that his milk was not a substitute, but that ultimately it would replace raw milk in every urban community. The world-wide crusade against raw milk in every city in every country, the suspicion engendered in the minds of the public by widespread campaigns against impure milk, gave him steadfast confidence that, sooner or later, the public would grow to the understanding of evaporated milk of guaranteed and unquestioned purity.

Mr. Stuart's reasoning has been amply justified by subsequent events. From the very start, Carnation Milk has enjoyed an extensive sale, until today the Pacific Coast Condensed Milk Company operate ten factories on the Pacific slope, and it has been found necessary to take care of the Eastern demand by the erection of four extensive condenseries in the favored dairying sections of Wisconsin and Illinois.

Despite a demand for Carnation Milk that taxes the capacity of these fourteen condenseries, despite the fact that this distribution covers the United States, Alaska and the Oriental countries, the real work of educating the public to the economy and advantages of evaporated milk is just beginning to receive attention.

Understand, that milk is a greater world necessity than flour or sugar; that its use is bounded by neither national nor geographical limitations; that evaporated milk has been known for but a few years and that its practical utility has hardly yet been touched upon. Regardless of the immense and extensive campaigns of advertising, the housewife has hardly awakened to this important economic factor in the kitchen and the nursery. It will require years of education and

the expenditure of considerable sums of money to displace raw milk as an article of household consumption; but the tide has surely turned to this more certain, safe, convenient, and economic food staple.

As an example of household economy, it is well for the consumer to appreciate the fact that Carnation Milk is nothing but pure milk minus part of the water. Evaporation removes the water, leaving the milk the consistency of cream, and rich in butter fat and solids to the extent of about 100 per cent more than a like quantity of ordinary raw milk.

A housewife who uses evaporated milk in the kitchen is quick to appreciate the saving effected not only in the cost and quantity of the milk required, but in the butter there is a big saving besides.

Another factor tending to popularize Carnation Milk is its convenience. Unopened, it will keep perfectly in any climate for years. It is always obtainable and available, day or night.

Since its introduction, Carnation Milk has met with the endorsement of the physicians and the nurses. In the nursery, it is rapidly supplanting raw milk, and its advantages as a food for infants and growing children is attested by mothers all over the Union.

Apart from the education of the actual consumer, the Pacific Coast Condensed Milk Company has for years been endeavoring to acquaint the retailer with the merits of its product and to show him a new source of revenue from the sale of evaporated milk. While your grocer has not always the time or the inclination to make a special study of every article he handles, he is, as a rule, quick to improve a pressing demand. In certain sections of the country, the grocer has seized the opportunity to divert the revenue that now goes to the milkman to himself. He is not only making more money by acquiring a new line, but he is making new friends, building business and goodwill.

In summing up the resources and factors that have materially contributed to the growth and importance of the Pacific Northwest, the Pacific Coast Condensed Milk Company is to be reckoned as a most potent influence. Not only does the company furnish employment to hundreds of men and women, but its efforts to promote the dairying industry have contributed in no small measure to the advancement of the entire section.

The efforts that this body of men are putting forth to acquaint dairymen in other sections with the many and exceptional natural advantages of Washington and Oregon, for stimulating emigration, have been responsible for the marked improvement in dairy cattle.

To quote Mr. Stuart: "To have good milk, you must first go to the cow; she must have good care, good feed, pure water, quiet and restful surroundings; she must be petted, pampered, well treated, and—contented."—From Harpers' Weekly.

News Items.

For Rent.—Hours ten to one in splendidly appointed office in the Monroe building. Apply to Dr. W. Fuller or phone Randolph 5931.

For Sale.—Cheap. 1-16 Plate Static and X-Ray Machine, with $\frac{1}{4}$ horse power motor. Dr. W. S. Hendricks, 2808 Diversey avenue, Chicago.

Announcement.—Dr. Robert James Gay desires to announce the removal of his office to Suite 1439 Peoples Gas building, 122 South Michigan boulevard.

Dr. Wirt Bradley Dakin desires to announce the location of his office at Suite 403 L. A. Investment building, Los Angeles, Cal. Practice limited to genito-urinary diseases. Formerly with Dr. Louis E. Schmidt, of Chicago.

Election of Officers.—The following are the newly elected officers for the ensuing year: President, Dr. Charles P. Caldwell; president-elect, Dr. James A. Clark; secretary, Dr. Charles H. Parks; treasurer, Dr. John S. Nagel.

New Locality for Physicians' Offices.—Less than two years ago Madlung & Eidman subdivided 28 acres into 234 lots at Sixty-ninth and Halsted streets, leaving unsold some choice 95 lots both on business and residence streets, with street improvements of the very best all in and paid, which indicates this property most desirable for doctor, dentist or surgeon to locate.

Annual Meeting of Rush Alumni.—The following officers were elected at the annual meeting of the Rush Alumni Association, held at the La Salle Hotel, June 11th, 1913; A. M. Corwin, class '90, president; J. Z. Bergeron, class '89, first vice-president; J. J. Stoll, class '85, second vice-president; L. B. Hayman, class '86, third vice-president; Morris Fishbein, class '12, treasurer, and Charles A. Parker, class '91, secretary.

The Board of Directors of the Chicago Municipal Tuberculosis Sanitarium have recently reorganized by the election of Dr. Theodore B. Sachs, president, and Dr. George B. Young, secretary. This reorganization was necessitated by the vacancy in the office of president caused by the resignation of Mr. Harlow N. Higinbotham, and the recent appoint-

ment by Mayor Harrison of Mr. W. A. Wieboldt as the third member of the board.

Lincoln Park Rest Cure.—Members of the profession will be glad to learn that Louise Godefrin has reopened a rest cure in a new and better location at 1656 La Salle avenue, corner of Eugenie street, overlooking Lincoln Park, capacity limited to 12 patients, giving the best possible care and attention to each individual.

Madam's Cuisine Francaise, we are assured, is of the same high standard.

Protect Your Health—"Swat the Fly."—It is a well known fact that flies carry disease. An easy method of exterminating the fly is as follows:

Instructions: Prepare a solution of nine parts of water to one part of formaldehyde, pour in a flat saucer, and add a teaspoonful of sugar. Place in the middle of the solution a small sponge, piece of bread or rag. Renew solution every day. The above method is strongly recommended by physicians and such authorities as the Chicago Board of Health.

A New System of Reports.—Wm. Morris Imbrie & Co., bankers, New York and Chicago, with an office here in the Harris Trust building, have a system of reports on corporations, or their securities, including practically all listed stocks and bonds, which we consider the best we have ever seen. They will supply them on demand to whoever has their service, which they give to reputable people for nothing. Naturally enough, this service gives people a feeling of confidence in the various offerings made by the firm, which is the reason for rendering it. We advise whoever reads this to drop them a line asking them to explain, as we consider it the greatest protection we know of in making investments—no matter where, or in what security.

Announcement.—The certified milk and cream and fat free milk heretofore furnished through the Walker-Gordon Laboratory of Chicago and certified by the Chicago Medical Society Milk Commission has been produced at Sedgeley farm near Hinsdale, and has been distributed on the north and northwest and south sides of Chicago and in Evanston by the Kee & Chapell Dairy Company and on the west side by the Western Dairy Company.

This milk and cream will continue to be furnished by Sedgeley farm daily and distributed under the seal of Sedgeley farm dairy and the Chicago Medical Society Milk Commission. Sedgeley farm dairy will maintain an office for the purpose of taking orders for its products at 2452 Calumet avenue, Chicago; telephone Calumet 1195.

Sedgeley farm is one of the oldest of those furnishing certified milk for the city of Chicago. Its cows are maintained under healthy conditions; the milk contains normally 4 per cent of fat, making home modification simple. The milk is promptly cooled, and iced, and the night's milk is brought to Chicago by automobile truck and distributed to consumers all the way from Evanston to Englewood the following morning.

thus giving a degree of promptness in the service which would not be possible if transportation by milk train on railroads were involved.

Sedgeley Farm Dairy, Hinsdale, Ill.

2452 Calumet avenue, Chicago. Phone Calumet 1195.

Kee & Chapell Dairy Company,

1101 N. Franklin street. North 71.

4735 N. Robey street. Edgewater 842.

6827 S. Chicago avenue. Stewart 2142.

4540 Champlain avenue. Oakland 1880.

1811 Columbia avenue. Rogers Park 148.

Western Dairy Company.

1447 Edgemont avenue. Haymarket 242.

Free Ice Given on Doctors' Certificates.—The Consumers Company is much to be commended in giving ice during the hot weather period to the deserving poor of this city. The following letter is self-explanatory and we print it in full, together with a list of depots where ice can be obtained on presentation of the certificates, which are furnished physicians at their request:

Dear Sir:—

This company desires to give free ice to the destitute poor of Chicago during the period of extreme hot weather, as we have heretofore given free coal through the severe cold weather.

We wish your co-operation in this work, asking only that you pass upon the actual necessity of those to whom you wish such relief given. We believe that, notwithstanding the many calls upon your time, you can find time to aid us in this work.

By returning the enclosed postal card with your address, we will send you blank certificates, each of which will be honored for fifteen pounds of guaranteed pure ice on any day in the year 1913 at any one of our depots shown on the back of the certificates, which are located in convenient sections of Chicago.

We are also enclosing a blank form of the certificate we propose to send you. Very truly yours, Fred W. Upham, President.

CONSUMERS COMPANY DEPOTS WHERE FREE ICE WILL BE DISTRIBUTED.

Location	Telephone	Location	Telephone
CENTRAL.		3801 Milwaukee Av.....	Irving 23
1502 S. Indiana Av...	Calumet 1014	1792 Milwaukee Av....	Humb. 1299
222 E. Indiana St.....	North 191	WEST SIDE.	
NORTH SIDE.		2512 W. Fulton St.....	West 1223
5245 Evanston Av..	Edgewater 191	40th Av. & Kinzie St..	Kedzie 2225
1809 Montrose Bl..	Lake View 402	2608 W. Van Buren St..	West 1350
1303 Wrightwood Av.	Lincoln 1477	439 S. Hermitage Av..	Seeley 6195
Division & Hooker Sts.	North 1540	311 N. Curtis St.....	Monroe 978
NORTHWEST SIDE.		SOUTHWEST SIDE.	
1733 N. 43rd Av.....	Belmont 7657	18th St. & Western Av..	Canal 500
2915 N. California Av..	Humb. 575	18th & Sangamon Sts...	Canal 1737

Location	Telephone
2413 W. 14th St.....	Canal 93
1506 S. Ashland Av.....	Canal 195
3808 S. Western Av.....	Yards 494

SOUTH SIDE.

34th St. & Centre Av...	Yards 890
400 Root St.....	Yards 6831
35th & Butler Sts.....	Yards 1220
35th St. & Armour Av...	Doug. 3103
47th & Butler Sts.....	Yards 632
640 W. 65th St.....	Wentworth 583
3973 Vincennes Av...	Oakland 3848
6214 S. La Salle St.....	Went. 526
9328 Anthony Av...	S. Chicago 99
61st St. & Washington Av.....	Hyde Park 131
6105 Lexington ...	Hyde Park 564
1422 E. 62nd St....	Hyde Park 151
1042 E. 75th St....	Hyde Park 487
82nd St. & Railroad Av.....	S. Chicago 2416
312 W. 24th St.....	Calumet 403
1231 W. 105th St..	Wash. Hts. 2031
459 Kensington Av...	W. Pull. 132

SUBURBS AND COUNTRY.

North.

1015 Church St.....	Evanston 4500
Greenwood & Dodge Aves.....	Evanston 4500

Location	South.	Telephone
Wolf Lake.....	Lake Shore	5
Whiting, Ind.....	Whiting	93-R
389 Hohman Av., Hammond, Ind.	Hammond	19
4753 Kennedy Av., Calumet, Ind.	E. Chicago	260
Broadway & 11th Av., Gary, Ind.	Gary	171
Valparaiso, Ind..	Valparaiso	182-R
Chicago Heights, Ill.....	Chicago Heights	360
602 Cass St., Joliet, Ill..	Joliet	1222
Kankakee, Ill.....	Kankakee	309
Momence, Ill.....	Momence	115
La Porte, Ind.....	La Porte	
Westville, Ind.....	Westville	
Bass Lake, Starke Co., Ind..	Knox	
Cedar Lake, Lake Co., Ind.....	Lowell	180-R-2
.....	Lowell	185-R-2

West.

7449 Franklin Av...	Forest Park 80
320 N. Broadway, Aurora, Ill..	Aurora 238
423 W. State St., Rockford, Ill..	Rockford 96
155 Milwaukee St., Elgin, Ill....	Elgin 26
Yorkville, Ill.....	Yorkville 51-R

Editorial Announcement.—The July issue of the International Hospital Record constitutes a change in American hospital journalism. With the exception of a period of six months, several years ago, when it was issued twice a month, The Record has been a monthly publication. In England, at least, both hospital and nursing journals are published each week, and I believe that the time is at hand when such a plan should be made a success in America. Generally speaking, a weekly class journal is of much more practical value, and of much more benefit to the field it represents, than is a monthly journal. The weekly journal may not be, and can hardly be expected to be, of as high a literary grade as the monthly, for the preparation of which there is four times as much time, but the weekly journal enables those interested to keep in much closer touch with what their co-workers are doing. The American hospital field is a peculiar field; it is unlike any other coming within the knowledge of the writer's nearly forty years of experience as a publisher. During the past fifteen years I have received but little of suggestions or criticisms regarding the policy of The Record, and without these few men can attain to the desired degree of success; there are plenty who think they can accomplish this, but with such it is a matter of theory rather than of actual practice. The American hospital field has reached the point where a work of reconstruction, a revision of methods of management, is necessary; American hospital needs have

outgrown the provisions of the past. In the future the American hospital must not only represent the best in medicine and surgery and the general care of the sick and injured, but it must also represent a much higher grade of administration and general business management. The American hospital must, if it is to succeed in its future work, be so conducted as to not only inspire the public with the feeling that a hospital, while largely charitable in its nature, must of a necessity be provided with funds ample for its needs; the public must be taught that a hospital is not an institution to be imposed upon, but one to be given the same degree of consideration as is accorded to other corporations. The public must be taught that if it costs a hospital fifteen dollars a week to properly care for a patient, the hospital should receive that sum either from the patient direct or from endowment or other similar funds. Hospital buildings and equipment deteriorate with age and use; new appliances must be purchased from time to time; new buildings must be added to meet the growing demands; salaries and wages and the general cost of maintenance are increasing, and the hospital must, in order to properly serve the public, have the funds for all this. Hospital managers themselves are to blame for the present low scale of rates for hospital service; they established their low rates years ago when the cost of hospital service was very much lower than now, and without any definite idea as to the actual cost, and the great majority of hospitals are still working under the burden of the deficits already accumulated and which can not but be added to each year unless the rates are raised to the point where they should be. To repeat, the American hospital field has reached the point where a work of reconstruction, a revision of methods of management, is necessary; I believe that *The International Hospital Record* in reaching hospital managers weekly can be of much greater service than in reaching them once a month. The change means added expense and added labor; I would not attempt it were it not that we have our own printing and publishing plant, and I am not promising that the change will be permanent—it will depend entirely upon whether the seeming demand for a weekly hospital journal in this country really exists, and upon the support, financially and otherwise, accorded. In conclusion, let me say that I will appreciate your suggestions and criticisms at all times that *The Record* may the better serve you.

DEL T. SUTTON, Editor.

Tonic Medication as an Adjuvant in the Treatment of Syphilis.—

By Edward J. Gordon, M. D., Trenton, N. J. "The evil that men do lives after them." That the great bard in this terse truism intentionally referred to the hereditary transmission of disease, may very likely be true, and the existence of syphilis was recognized prior to the Shakespearian era. The fact of this curse surviving to the present day, notwithstanding the beneficent results following its treatment by mercury, etc., presents a seemingly anomalous situation. This situation has partly resulted from the failure of patients to keep themselves under observation and treatment for a sufficiently prolonged period after the disappearance of the earlier symptoms. Such neglect undoubtedly accounts for the graver late lesions developing among many thousands. Again,

an entire lack of any treatment among others has spread the disease broadcast the world over. The advent of the Ehrlich discoveries, salvarsan and neosalvarsan, has not brought fulfillment of the long-cherished hope for a specific remedy, equally effectual in all the stages. Wonderful results have undoubtedly been achieved in the primary cases, but in the later and graver conditions, failure has frequently resulted. Prevention then remains the only certain means of eradicating the disease.

But what a Titanic task! So long as sexual immorality prevails, whether in the form of prostitution or in the more insidious communion of passion-serving "affinities," so long will syphilis continue to be transmitted to unborn generations. Whether it be wiser to segregate the "scarlet woman," or to drive her forth to take up her residence indiscriminately in all sections and among all classes, is a question being heatedly argued in many cities at the moment. But any means that would bring infected women into proper hands for treatment, would contribute largely to bring about the desired results. The writer once heard a prescient Professor of Genito-urinary Diseases state that if all the prostitutes of New York would come to him for frequent observation and treatment, he would gladly devote his time to the work without charging one cent, for he knew he could in this way save countless thousands, many of them entirely innocent.

More general education in prophylaxis would help much and that which has been accomplished by this means in the United States Army and Navy should sound a note of cheer.

But what of those now afflicted? Mercury is the proven sheet-anchor, but often in advanced cases the patient needs more than specific medication. He is frequently so debilitated, owing to the extent to which nutritive processes have been interfered with by organic changes, that his condition is most alarming. To remedy such cases it is obviously imperative to "build up" the patient's strength and the mere giving of a stimulant to excite his appetite will not suffice. But to administer a remedy which is in itself a reconstructive, capable of restoring function by the rational means of supplying needed elements in assimilable form is not only desirable, but possible. Many syphilologists have employed hypophosphites, particularly in the form of Fellow's hypophosphites, for this purpose, and heartily endorse its use because of the happy results. The syrup is very palatable, easily assimilated and does not cause gastro-intestinal disturbance even in the most susceptible patients. I therefore consider it a very rational and important adjuvant in the treatment of syphilis.—Critic and Guide, May, 1913.

Examination for Rhodes Scholarship at Oxford.—President Edmund J. James of the University of Illinois, chairman of the Rhodes Scholarship Committee of Illinois, has just received notice from Hon. George R. Parkin, Secretary of the Board of Trustees of the Rhodes Scholarships, that the next qualifying examination for all candidates for an Oxford Rhodes scholarship will be held October 14 and 15, 1913.

This examination corresponds to the entrance examinations required by many American colleges. From the candidates who pass this exam-

CHICAGO MEDICAL
RECORD

THE CHICAGO MEDICAL RECORDER

AUGUST, 1913

Original Articles.

EPIGASTRIC POINTING OF APPENDICAL SUPPURATION.

By WELLER VAN HOOK, M. D.

It is a most unusual thing to observe the epigastric pointing of an abscess that has taken origin at the vermiform appendix.

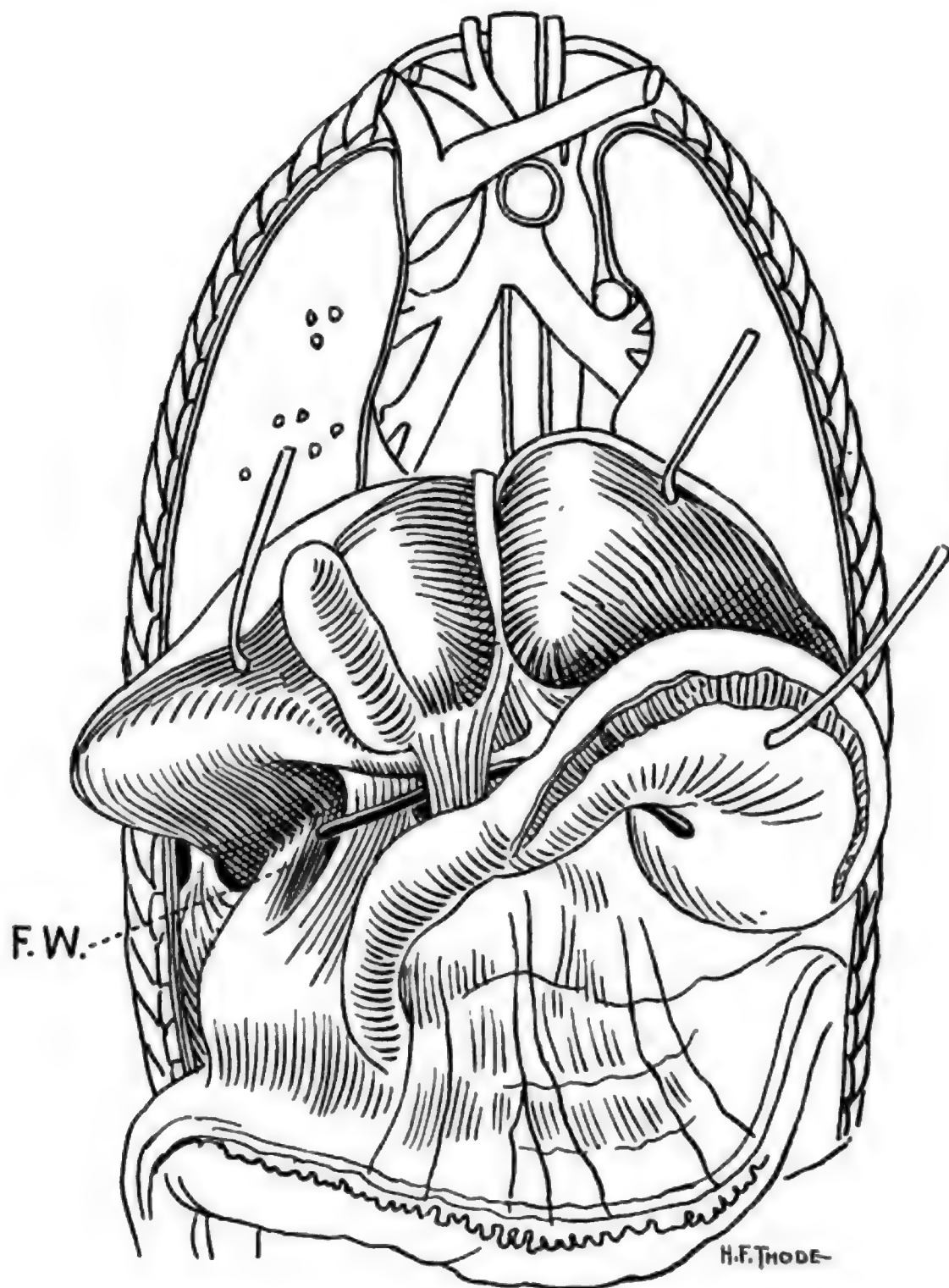
The following is an account of such a case:

X., Greek patient of Dr. M. Engels, male, about 30 years of age, had been ill of violent abdominal colic for about 48 hours. The bowels had moved freely after the administration of drugs. The temperature when the patient was seen was 102.5° and the pulse rapid. The leucocyte count was about 10,000 and ran up to about 20,000 in a few hours.

There was much tenderness about the epigastrium but tenderness in the right inguinal region was wholly denied. No localization of rigidity could be observed at the appendix region, but the generally heightened tension over the whole abdomen was centred at the epigastrium.

Reports as to irregularities of diet were incomplete, but the very well-nourished state of the patient spoke against gastric and duodenal disease. Nevertheless since the local findings indicated, with the fever and leucocytosis, a perforation peritonitis, it seemed that a hollow organ of the upper abdominal cavity must be in open communication with it. A positive diagnosis was, therefore, made of perforative peritonitis, probably involving the stomach, though possibly the gall-bladder might be the affected organ.

Operation: Median large abdominal incision above umbilicus. Immediately a considerable quantity of odorless fluid, of thin soup



Relations of the Liver, Stomach and Colon. (After Toldt.)

appearance, flowed out of the wound. There was not the bloody appearance characteristic of hemorrhagic pancreatitis nor was there bile or gastric juice suggestive of perforation of the gall-bladder or stomach.

The hand was passed into the abdomen and the pyloric extremity of the stomach was found smooth and free from protrusions. The gall-bladder was next palpated since the fluid welled up from about it. It was found intact. The hand was then passed down in front of the omentum toward the pelvis and the appendix felt. It lay lightly agglutinated to the posterior abdominal wall; and it was easily determined by palpation that it was the seat of the initial lesion.

Upon making this discovery the upper incision was closed with abundant gauze drainage and a small opening was made at McBurney's point, the appendix was removed in the usual manner and both the pelvis and the appendix region drained with gauze, carried separately through the two openings.

In the writer's experience the most reliable diagnostic sign of appendicitis is heightened resistance to pressure of the hand over the inflamed part. This symptom is sometimes wanting where the appendix lies in contact with the posterior abdominal wall, as observed in this case. The pus found its way along the colon and outside the colic attachment of the omentum, and excited anterior parietal peritonitis at the epigastrium.

The patient survived a stormy period of two or three days and made an excellent recovery. Dr. Engels, who watched the case and conducted the post-operative treatment, was of the opinion that the drainage at each of the openings was desirable and helpful as abundant discharge occurred at both places.

31 N. STATE STREET, CHICAGO.

RADIUM AS A UNIQUE AGENT IN DERMATOLOGIC THERAPEUTICS.*

By FRANK E. SIMPSON, M. D.

Prof. of Dermatology, Chicago Policlinic; Attending Dermatologist, Cook County Hospital, Etc.

Radium, as everyone knows, was discovered by Professor and Madame Curie in 1900. "Radium appears to be a metal of the alkaline earths akin to barium and strontium." It is derived from certain ores which are mined in St. Joachimstal in Bohemia and in various other localities. Until recently, radium had not been obtained pure in the metallic state but only in the form of salts (chloride, bromide, sulphate, etc.). Radium is one of the classes of metals which includes Uranium, Thorium, Polonium, Actinium, Radiothorium and some others. All of these bodies possess certain remarkable qualities the chief of which is called radio-activity. Of these bodies radium is by far the most active being about two million times as active as Uranium. It is the only radio-active metal that is used at the present time to any extent as a therapeutic agent.

Properties.

Radium has certain physical, chemical and biologic properties that are of great interest.

1. Physical and chemical properties.

Radium liberates heat in a spontaneous and regular manner. It will melt its own weight of ice in one hour. It also liberates light; when radium is put in a glass tube it becomes luminous in the dark; it also has the power of coloring glass violet, brown or black, and it will also color diamonds, rose, green, blue, or yellow. This coloration is not, however, permanent. Radium will act on photographic plates and thus permit photographs (radio-graphs) to be taken. Radium will ionize air, i.e., it separates the particles of air into "ions" which it charges with electricity. This is shown by the fact that if a charged electroscope be brought into the room containing radium the electroscope is discharged. Radium will excite phosphorescence in certain bodies, e.g., barium platino-cyanide, so that it will light up a fluoroscope in the same manner as X-rays. The rays from radium will also pass through opaque bodies. Some of the rays are not stopped by as much as four inches of lead.

*Lectures delivered at a special spring course (April, 1913) given at the Chicago Policlinic. In their preparation the writings of Wickham and Degrais, Abbe, Lazarus and others were freely consulted.

2. Biologic properties.

Meal worms, exposed to radium are repressed in their growth so that they go on living as meal worms while their unradiumized brothers and sisters complete several cycles of beetles, eggs, meal worms, etc. If seeds are exposed to radium for a week they lose their power of germination. The action on the skin and deeper tissues is shown in a variety of ways. It was an accident which first led to the knowledge that radium by means of its rays affected living tissues. Becquerel was experimenting with radium and put a tube containing pure radium in his vest pocket. About two weeks afterward a severe inflammation of the skin developed which was recognized as due to the effect of the radium.

Radium rays and emanation.

Radium gives off continually and spontaneously two different therapeutic forces:

1. The emanation.
2. The rays.

As being of the least importance at present, the emanation may be considered first. Radium continuously produces a body known as the emanation which has the properties of a gas. This gas has the very remarkable and curious effect of conferring radio-active power on all bodies and elements which it touches. If, for example, this emanation is brought in contact for some time with vaseline or oil or water these substances become radio-active. Vaseline, e.g., will become luminous and give off radio-active rays but only for a few days. Certain mineral springs in this way furnish water which exhibits radio activity, a property which is soon lost. For the production of the emanation it is necessary to have a solution of radium as it is not given off from apparatus in which the radium is fixed in varnish. The emanation may be conveyed into the body by inhalation or by means of water, oil, vaseline, or drugs, such as quinine or mercury, which have been rendered radio-active by being exposed to the emanation. These substances can then be applied to the skin or can be injected or ingested into the body. In addition to conveying the emanation into the body in this way it is possible also on account of the solubility of radium salts to dissolve a small quantity of radium itself in various substances such as water and this can be used by mouth or can be injected. We thus distinguish between:

1. So-called *radio-active products*—which means substances that have become radio-active through contact with the radium emanation.
2. *Radiferous substances* which contain a minute amount of

radium dissolved in them. With reference to the practical use of the emanation I would say that while progress is being made it has not yet been employed in any systematic and definite enough manner to warrant positive conclusions. Progress is always slower in medical therapeutics than in what may be called surgical pathology. A future is undoubtedly in store both for the use of the emanation and the use of injections of substances containing radium. With these few remarks I will leave the subject of the emanation and come direct to the use of the rays emitted by radium which are used principally in skin diseases.

The *rays*, which are emitted by radium, are not homogenous but are composed of at least three distinct kinds known as alpha rays, beta rays, and gamma rays. These are of course invisible but manifest themselves by certain reactions.

Alpha rays are similar to the anode rays of a Crookes tube. They are believed to be material atoms, of about the size of the hydrogen atom and having the velocity of about $1/20$ to $1/10$ of the velocity of light. They are easily absorbed and penetrate only slightly. A thin layer of metal or rubber is sufficient protection from them. They are deviated slightly to the left by a magnet. They form in the varnish apparatus about 1% of the total quantity of the rays emitted by radium.

The Beta rays are similar to the Cathode rays of the X-ray tube but are 500 times more penetrating. They are believed to hold a position midway between matter and ether and to be of electro-magnetic nature. The Beta rays are not all of the same quality and are sufficiently unlike in nature to be termed soft, medium, and hard. Without describing them minutely it may be said that the atoms composing the hard Beta rays are 2,000 times smaller than the hydrogen atom and have about the velocity of light. They have great power of penetration, easily going through 5 mm. of lead. They are strongly deviated to the right by a magnet. In the varnish apparatus Beta rays form about 90% of the total quantity of rays.

Gamma rays are a "pulsation of the ether" and are similar to X-rays. They have a velocity equal to that of light. They are not deviated by a magnet. They have enormous power of penetration—at least five to ten times that of X-rays. They are not stopped by as much as 10 cm. of lead. Gamma rays form about 9% of the total quantity of rays in the varnish apparatus now in use.

Apparatus.

At the present time two main forms of apparatus are used for

the application of radium. The first is in the form of a tube which contains the radium salts. This has the advantage of being able to be introduced into cavities. The second form of apparatus consists of a flat metal plate, usually a copper or nickel plate. This is covered with a special varnish which is melted at high temperature and poured over the plate to form a thin coating. In this varnish is incorporated the radium salt, the whole face of the apparatus forming a blackish mass in which is distributed the radium. Instead of being flat the metal may be concave or convex in order to adapt the applying surface to various concavities and convexities. For introduction into cavities cylindrical or spherical surfaces are employed. Another form of varnish apparatus is constructed with linen instead of metal as the base of the apparatus. In these so-called "toiles" the varnish is stuck to the linen, the radium being incorporated in the same way as in the metal applicators.

Application of instruments.

The varnish apparatus now employed is usually wrapped in a fine sheet of rubber tissue to protect its surface from contact with the tissues. The tissue to be treated is cleansed from crusts and secretions as far as possible. When the surface to be treated is exactly the same size as the instrument nothing is simpler than to make the application for the required length of time.

If the lesion to be treated is larger than the apparatus the application must of course be made in sections. If the lesion is smaller than the apparatus some means must be taken to protect the normal tissues. We do this by means of lead sheets in which a hole has been cut to fit the lesion. In addition to the lead sheets we use several thicknesses of black paper which is interposed between the lead sheet and the normal skin which it is desired to protect. These sheets of paper absorb the secondary rays which are developed whenever the rays of radium pass through a metal such as lead. If the paper is not used, the secondary rays prove irritating to the skin which it is desired to protect.

Application of Instruments with Screens.

The use of screens is a development of technique for which we are indebted to Dr. Louis Wickham of Paris.

Their use was brought about by a consideration of the different kinds of rays which are emitted by the radium apparatus. In the varnish apparatus, as before mentioned, the rays are not homogenous but are composed of so-called Alpha rays in the proportion of 1%, of Beta rays in the proportion of 90%, and of Gamma rays in the

proportion of 9%. These rays have different powers of penetration. The *Alpha rays* are easily stopped by a thin sheet (1 mm.) of metal or rubber; the *Beta rays* penetrate about 5 mm. of lead, and the *Gamma rays* are not stopped by as much as 10 cm. of lead. The superficial tissues absorb and are irritated by the slightly penetrating rays; they are not affected materially by the deeply penetrating rays. In consequence of these facts, in certain deeply seated lesions, screens are used to filter out and absorb the irritating and slightly penetrating rays while the deeply penetrating rays are allowed to act on the deeply seated tissues.

In using screens over the radium apparatus the same considerations must be observed that were noted in the protection of normal tissue. When radium rays pass through metal, secondary rays are developed which are irritating to the superficial tissues and might cause a radium dermatitis. We therefore interpose between the screens and the skin several layers of black paper. These absorb the secondary rays. The screens that are used are made either of silver, aluminum, or lead. They are of various thicknesses—from 1/10 mm. to 2 mm. They are so constructed as to fit over the varnish apparatus. The whole apparatus is enveloped in 5 to 10 sheets of black paper and this is all enveloped in fine rubber tissue. The apparatus is then applied and held in place by bands or adhesive plaster.

Dosage.

This naturally includes: 1, the power or radio-activity of the apparatus, which means the amount of rays emitted by the apparatus. 2, the length and frequency of the applications.

1. *Radio-activity of the apparatus.*

It must be stated that when first manufactured radium has a weaker output of rays than after several months have elapsed. The radium, as we say, matures and reaches a certain strength which is then maintained indefinitely as long as the varnish which protects it is not injured. As a matter of interest it may be stated that radium is now believed to exhaust itself only in about 1,200 years. The radio-activity of an apparatus can be measured in a variety of ways.

1. Colormetrical reaction.
2. Impression on a photographic plate.
3. Effect on phosphorescent material.
4. Electrical action.

The last method, electrical action, is the most in use. Without going into details it may be said that the measurement of radio-ac-

tivity by this method depends upon the power of ionizing air possessed by radium. If we take a metallic rod which is carefully insulated and convey to it a certain amount of electricity we find that if the air is dry the rod will remain charged for several hours. If, however, we bring near it a radio-active body the rod will be discharged in a few seconds or minutes. We explain this phenomenon by saying that the air is ionised. In other words the air is separated into elements, called "ions" which are charged with electricity. This renders the air a good conductor of electricity and the metallic rod is therefore discharged. By an instrument called the electroscope the velocity of the discharge can be calculated. The velocity of the discharge gives an accurate index of the radio-active power of the radium which is being tested. The greater the radio-active power of the radium the quicker the discharge of the electroscope and vice versa; the weaker the radio-active power of the radium, the slower the discharge of the electroscope. When the radio-activity of the radium apparatus has once been determined several other factors enter into the actual power of the instrument. For its proper application therapeutically in a given case we must know with reference to a given radium apparatus:

1. The quantity of radium salt in the apparatus and its activity as determined by the electroscope.

2. The size and surface of the apparatus used.

One can seldom use the entire surface of the apparatus and hence one often uses a radio-activity that does not equal the total calculated activity of the instrument. Suppose; for example we have an instrument 4 sq. cm. in area, with a calculated total external radio-activity of 400,000. If we only use in a given case 1 sq. cm. of the surface we would only use an actual activity of 100,000.

3. We must know which kind of rays, whether alpha, beta, or gamma, enter principally into the radiation used. As before remarked, some of the rays are only slightly penetrating, others have medium powers of penetration while other rays are ultra-penetrating, i. e., acting only at considerable depth in the tissue and sparing the skin.

Clinical Therapeutics.

Having explained the nature of radium and radio-active energy and the methods by which this energy is measured, it now remains to consider the effect of radium on the tissues in health and disease. When radium is applied to living tissues a certain effect is produced which is termed reaction. This reaction in general is of two kinds.

1. A reaction that is clinically invisible except in the gradual disappearance of pathological tissues or modification of normal tissue.

2. A reaction that is clinically accompanied by inflammation which may go on to necrosis.

In the *first case* where the reaction goes on without any clinical signs of inflammation we speak of the "specific" or "selective" or "re-constructive" action of radium. Here there is no breach of the surface. In the *second case* where there is inflammation, visible to the eye, we speak of a "radium dermatitis" and when this goes on to necrosis we speak of the "destructive action" of radium. Here there is a breach of surface. It is evident that clinically these two methods of action may be often combined in varying degrees.

The interesting point, however, and one that must be insisted upon, is that the action of radium may take place without any visible evidence an "inflammatory" reaction.

The action of radium on the skin of the guinea pig has been studied clinically and histologically by Dominici and others.

Clinical.

If we expose the skin to a series of therapeutic applications (e. g., using an instrument with 500,000 activity 10 minutes a day for 5 successive days—50 minutes in all), we obtain a very superficial ulcer which heals in 4 to 6 weeks. Apply the instrument 10 times as long and the ulcer heals with great difficulty. The result is very different if we use, e. g., a screen of 1/2 mm. of lead. Then an application of 50 minutes produces no apparent effect. Apply it for 72 hours and we get the same effect as with a naked applicator applied for 50 minutes, but with the addition of deep seated reconstructive action.

Histological.

The effect on the *epidermis* is to modify it whether physiological or pathological epidermis. The epidermis of hairs, sebaceous and sweat glands (or of epithelioma) is gradually absorbed and disappears. A granular degeneration takes place and then absorption. The Malpighian layer persists. The cells of the *vascular connective tissue* at first return to the state of embryonic connective tissue. Later they again become elongated fibro-blasts and form connective bundles and elastic fibres. The general structure is that of fibro-elastic tissue. The regeneration of elastic fibres at the same time as the connective tissue fibres explains the suppleness of the scars. In the case of new growths, the changes that occur are of the same general character,

with the important difference that the tumor cells (whether epitheliomatous or sarcomatous), have their vitality lessened. Their evolution ceases and clumps of cells undergo necrobiosis. It is not certain, however, whether the radium rays have a distinct selective action on these cells or whether this decrease and alteration are due to changes in the blood supply.

Theory of Action of Radium.

A working theory of the action of radium rays may be expressed as follows: When the rays pass through living cells a certain accumulation of entangled rays takes place. When this is very slow and slight the effect may be merely healthy stimulation of their normal function. When the accumulation of rays is rapid or long continued total destruction of the cells occurs. The border line between stimulative and destructive action is reached much more quickly in the case of pathological cells inasmuch as they are much more unstable than normal cells. Alpha and Beta rays may be considered as projectiles. The atoms of which they are composed are infinitely smaller than the atoms of the bodies which they strike. They slip through therefore the inter-atomic spaces losing a certain amount of their energy by friction. That is, they are, as we say, easily absorbed. The Gamma rays which are undulations of the ether penetrate even more easily. The exact distance to which they reach is difficult of estimation. It is estimated that after passing through skin 2 m.m. thick the bulk of all rays together is reduced to about 15% of the original quantity. After passing through about 9 m.m. of tissue, only about 4% remains but after this rays suffer practically no diminution of bulk at any depth. These estimations are, however, only made for the ordinary instruments now in use containing 1 to 10 c.g. of radium. When we can have larger quantities of radium to work with, the estimations may be very different.

Therapeutic Results.

The diseases that are amenable to treatment with radium can be grouped under several headings.

1. Epitheliomata and other malignant tumors.
2. Cheloids and scars.
3. Naevi.

Angiomatous and pigmentary.

4. Tuberculosis.
5. Lupus erythematosus.
6. Certain neuroses of the skin characterized by itching and

pain such as pruritus, neuro-dermatitis, eczema, and various neuralgias and hyperesthesias.

7. Various diseases characterized mainly by hyperkeratosis. These include psoriasis, Lichen planus, palmar keratosis, papillomata, warts, vegetations and many others.

8. Diseases of the appendages of the skin such as some cases of hypertrichosis, acne rosacea and sycosis.

Epitheliomata of the skin and mucous membrane for purposes of treatment, may be divided into several classes.

1. Those with metastases in the neighboring lymph glands or elsewhere. It goes without saying that epitheliomata with metastases should never be subjected primarily to radium treatment. As an aid to surgery radium may be of great value in much the same manner as we now use X-rays, radium being much more penetrating and far-reaching in its effects than X-rays.

2. For localized epitheliomata in various situations especially about the face where many of them occur, radium offers an elegant and efficient method which is not surpassed by any other agent. I believe it is allowable to use radium in all those cases of epithelioma where a conservative surgeon would not remove the lymph glands adjacent to the epithelioma. In certain cases of wide area where surgery alone would produce great deformity radium has been of the greatest use. Its only rival in these cases is the Roentgen ray. By means of these agents it is now possible to heal certain epitheliomata in a marvelous manner and the resulting scar is surprisingly good.

3. In cancer of the buccal mucous membranes radium, while extremely useful, does not always succeed. In general I believe it is better in these cases to resort at once to surgery and later use radium to eradicate if possible any outlying cancer cells.

4. Epithelioma of the conjunctiva has been successfully treated with radium and is the method of election in suitable cases.

Carcinomata.

1. In deep seated carcinoma such as cancer of the breast radium must be regarded as an important adjunct to surgery but, of course, should never be used exclusively.

2. In cancer of internal organs such as pyloric cancer, cancer of the rectum, cancer of the uterus, it is possible to introduce a catheter containing a tube of radium into the viscus by means of an artificial opening such as a gastro-enterostomy wound or an artificial anus. In cancer of the prostate gland, radium has been introduced through a catheter and has been successful in a few cases.

3. In inoperable cancer radium may play a very important part in minimizing suffering and prolonging life even though there is no hope of recovery.

In general we may sum up the treatment of cancer with radium by saying that we must be extremely circumspect in our choice of cases. Radium acts only locally and cancer should not be subjected to treatment with radium except in suitable cases. It is possible that the future may modify these views. When we are able to use radium in large quantities—in perhaps 10 or 100 times the quantity now available, results may be achieved that are now not even dreamed of.

2. *Cheloids and Cicatrices.*

The influence of radium upon both cheloids and hypertrophic scars is very great. The action of radium, however, in these two affections is somewhat different. Unfortunately it is not always possible clinically to distinguish between the two processes and often it happens that the two affections are combined.

Cheloids.

The action of radium in cheloids is very remarkable. It is well known that these are very difficult to treat by the ordinary methods, although X-rays have been successful in some cases.

In the treatment of cheloids recourse may be had to the selective action of radium. By this it is often possible to cause the cheloid to disappear without any superadded inflammation. Those which respond most readily to the selective action of radium are cheloids of recent formation and those in young children. In practice it is often well to combine the selective action with more or less destructive action.

Cicatrices.

In the case of scars and bands a somewhat different technique of treatment must be adopted. In the treatment of this condition one must use the destructive action of radium. The benefit of treatment here is derived from the convenience with which the destructive action is obtained and from the splendid quality of the reparative tissue. It must be remembered, however, that not all scars are equally adapted to radium treatment. Only those scars that are projecting and form more or less prominent bands of fairly large surface are suitable for the destructive or leveling action of radium.

Angiomata.

The treatment of this group of diseases is one of the most satisfactory phases of radium-therapy. Vascular nevi are of many different types but may be divided into two large groups.

1. Flat angiomata, level with the skin, which may be very superficial or extend deeply into the cutaneous and sub-cutaneous tissues.

2. Raised or protuberant angiomata.

For both these classes of angiomata no completely successful treatment has until recently been available. Electrolysis is very successful in small lesions. X-rays have succeeded in a few isolated cases only.

The CO₂ snow and liquid air treatment by means of which extremely satisfactory results can be attained, is the only method, I believe, that can compete with radium. The CO₂ snow method, however, is much more successful in the protuberant angiomata. In the flat angiomata its success is very indifferent. In the flat angiomata and in the very large angiomatous tumors involving, e. g., 1/2 of the face or head, radium offers the most practical method of treatment.

The action of radium on angiomatous tumors seems to be a specific and selective action. Under the influence of radium some angiomata can be decolorized, reduced and absorbed without the intervention of any destructive inflammation. In practice we must often combine with this selective action a certain amount of destructive action. The melting away of large angiomatous tumors under the influence of the action of radium is one of the most marvelous of modern therapeutic achievements. The absence of pain and the convenience of application are in addition further advantages of the method.

Pigmentary Nevi.

In the treatment of large pigmentary nevi recourse must be had to the destructive action of radium. In order to obliterate them it is necessary to destroy the pigmentary layer of the skin.

This does not imply, however, that radium treatment is inefficient. On the other hand radium forms for some of these pigmentary nevi the most efficient method of treatment yet discovered. For small pigmentary tumors electrolysis is efficient. For some of the larger ones the CO₂ treatment is unexcelled but for certain of the large, hairy, deeply colored, prominent tumors the radium treatment offers certain great advantages. Even though the decolorization is not perfect and the color of the treated lesion not absolutely the same as the normal skin the great improvement is noteworthy and equals that to be attained by any method.

Tuberculosis of the Skin and Mucous Membranes.

Tuberculosis of the skin is not as common in this country as in certain parts of Europe. On this account radium treatment does

not assume the importance that it holds in the treatment of some other cutaneous diseases.

In *Lupus vulgaris* radium may be of great service and in this respect it holds a place along with Finsen light and X-rays. The selective action of radium, however, must here give way to its destructive action for it is by means of its destructive action that the best results are attained. Following this the scars are of good character. They are smooth and never cause retraction or give rise to fibro-sclerotic bands or cheloids.

Lupus Erythematosus.

This is one of the most rebellious and chronic of skin diseases. Cases may easily last a quarter of a century spreading from time to time or remaining more or less stationary. In the treatment of this disease, Finsen light, X-rays and CO₂ snow have played an important part in the last few years. In spite of these improvements in methods cases occur which resist treatment and in which every addition to therapy is welcome. I believe that radium has a distinct and unique place in the treatment of *lupus erythematosus*.

Certain Neuroses.

Pruritus—neuro-dermatitis. One of the first effects of radium in the treatment of painful epitheliomata and cheloids is the relief from pain. This analgesic action is manifested to a marked degree in the relief of *pruritus* or itching which is a modified pain.

Pruritus Ani and Pruritus Vulvae.

This is often relieved in a wonderful manner by radium and everyone knows its rebelliousness to the ordinary forms of treatment.

Neuro-Dermatitis.

This is a well defined disease called by Brocq *neuro-dermatitis* and apparently corresponding to the *lichen chronicus simplex* of Vidal. Some cases may be small areas of *lichen planus*. This disease is characterized by small thickened areas where the skin is in the state of so-called lichenification. It is thickened, slightly scaly and the natural lines and furrows are much deepened. The areas vary in size from one to several inches in diameter and are of irregular shape. A common place for them to occur is on the back of the neck. The itching is extreme. These patches are extremely chronic and rebellious to treatment. Under radium remarkable results can often be achieved. These patches yield to 3 or 4 treatments of 10 to 15 minutes each.

In the treatment of *eczema* even of large areas great success has attended the use of radium. While of special use in chronic and thickened patches of *eczema* Wickham has recently extended its use

to acute eczema even in young children. The applications here are of exceedingly short duration—not over 1 or 2 minutes.

In general in the treatment of neuro-dermatitis and eczemas the best plan seems to be to give short and frequently repeated exposures without a screen. Super-added inflammation should be carefully avoided. The action of radium seems to be of special value on account of its power of relieving the itching which is a prominent symptom in all these affections.

It may be mentioned in passing that Wickham has had remarkable results in relieving the hyperesthesia following herpes zoster and also certain neuralgias.

Various Diseases Characterized by Hyperkeratosis.

Psoriasis.

In certain types of psoriasis, especially the itchy or indolent types, radium can be used with great advantage. It is especially indicated in psoriasis of the nails. The power of penetration possessed by radium is especially valuable enabling it to act on the keratosis which is underneath the nails. Of course, the psoriasis may recur under any method of treatment.

Lichen Planus.

In some forms of lichen planus—the so-called warty or verrucous type in which larger and smaller warty plaques appear, radium has a remarkable effect. These warty plaques may last for years unless they receive X-ray or radium treatment and as they are extremely itchy they form one of the most distressing of skin lesions. A proper technique is to make three or four applications of twenty minutes each. This will usually remove the patches. In palmar keratosis and in warty vegetations, radium forms an efficient method of treatment when other means fail.

Diseases of the Appendages of the Skin.

In some forms of *hypertrichosis* such as an aberrant patch of hair along the hair margin radium can be used very successfully. Here it is possible by using the penetrating rays (i. e., with a screen), to cause depilation without inflammatory reaction. In *acne rosacea* and in *sycosis* radium has been used with signal success.

The diseases of the skin that have been already mentioned by no means exhaust the list of affections that are amenable to radium treatment. An attempt only has been made to give a bird's-eye view of a few diseases and to afford a glimpse of what has already been accomplished as well as to indicate the great possibilities of this fascinating subject.

FURTHER COMMENT ON SCHOOL HYGIENE.

By DR. FRANK ALLPORT.

July 22, 1913.

To the Editor,

CHICAGO MEDICAL RECORDER,
Chicago, Illinois.

Dear Sir: In the last issue of your Journal, you print a communication from Health Commissioner Young, in which he takes exception to certain words contained in my article on "School Hygiene, etc.," which appeared in the May number of the RECORDER. In this article I referred to the unwillingness of the Chicago superintendent of schools to encourage the preliminary examination of children's eyes, ears, noses and throats *by school teachers*, on the ground that it was an additional tax upon their strength and time, which she was unwilling to impose upon them. I referred also to her views, that this matter should be undertaken and paid for by the Board of Health, and not by the Board of Education. I also said that "the Commissioner of Health, on the other hand, claims that tests of this kind should be made under the auspices of the Board of Education, and that his department has not the money to have either the medical inspectors or school nurses make the tests. And thus, between this conflict of opinion, one of the greatest cities of the world refuses to dispense justice to its school children."

Dr. Young says that he cannot imagine where I obtained this information, and that he is emphatically of the opinion that such tests should be made under the auspices of the Board of Health, but regretfully announces that this has not heretofore been thoroughly possible, on account of lack of funds. The only point, therefore, upon which he claims to have been misquoted is the one concerning his *views* as to which board should superintend the eye, ear, nose and throat tests. I am not at liberty to state where I obtained this information, and can only say that it was obtained from one of the highest paid, and most respected city officials in Chicago, and from one who *should* know the facts. If, however, I have misrepresented Dr. Young in this matter, I desire to most heartily apologize, and regret that I was misinformed. The fact remains, however, that nothing of a satisfactory and systematic nature has been done, and that for *some cause* "one of the greatest cities in the world refuses to dispense justice to its school children." The straitened condition of the city treasury has been known for years. Its financial inability to hire sufficient doctors to successfully and annually complete these tests

is equally well known. The enormous percentage of eye, ear, nose and throat diseases and defects amongst school children is axiomatic, and the neglect of such diseases and defects is constantly filling our land with contagion, blindness, deafness, ignorance, disease, crime, unnecessary expense, etc., etc. If, therefore, there have been and are now, no funds for the detection and correction of such defects, under the control of the Board of Health, then why do not the proper authorities command the performance of this work by the Board of Education, where it can be accomplished with very little effort, and practically no expense, by the teachers of the various rooms of the city schools? If Dr. Young knows that Board of Health funds are not going to be available for the thorough performance of this work, for the coming year, I am sure that all of us who are interested in the subject would be deeply grateful to him if he would, in spite of his "views" lend his influence to a practical solution of the problem. All that is necessary is for the Board of Education to instruct the room teachers to, annually and systematically, upon a fixed day in the early fall, make the preliminary eye, ear, nose and throat tests, according to the published methods issued by F. A. Hardy and Company, 10 South Wabash avenue, upon the children in attendance in the various rooms. Any intelligent teacher can *easily* make the tests; no medical knowledge is necessary, and no diagnosis should be even attempted; the evident existence of disease or defect is all that is necessary. Nine simple questions are asked and answered; they will disclose the existence of seriously diseased or defective eyes, ears, noses and throats in almost all cases. If disease or defect is found, a warning card is sent to the parent, notifying him that the child should be taken to their family doctor or a specialist of their own choosing, either at the office or dispensary. These cards are followed up by the teachers or school nurses, whenever the necessity arises. The cost is almost nothing, and is represented merely by the visual charts, which contain the teachers' instructions, the "warning cards," and brief report forms. It would not exceed \$500.00 annually for the city of Chicago. Think of what one day's work by the teachers and \$500.00 would do for the children of this city. Is it not inconceivable (to use no stronger language) that this work has not been cheerfully and gladly accomplished for years past? The argument that this is an unwarrantable tax upon the teachers' time and strength is puerile, and hardly worthy of consideration. The tests are easy; the labor insignificant; by having each teacher examine her own pupils, every child in Chicago could be easily examined in one day, and then the work is done.

Dr. Young quotes me as saying that it "is attested by thousands of doctors, teachers, etc., who are familiar with the work, that this little bit of time and trouble subsequently repays the teachers many times over, by revolutionizing the characters and teachability of many of their pupils." These sentiments I wish to repeat, and emphasize, and can assure Commissioner Young, and Superintendent Young, that wherever the tests have been given a proper and permanent position in the school work, the teachers have become its warmest advocates.

And now I desire to refer to a recent action taken by the School Management Committee, on the recommendation of Superintendent Young. The committee recommends that the vision of the school children of this city be tested, but it does not state when nor how often the tests shall be made. The eye tests, as outlined by the committee, refer merely to vision tests, with special reference to the necessity for glasses. It does not seem to have occurred to the committee, or its advisory staff, that there are other pitiable and serious eye diseases and defects. Their tests do not mention such conditions as ulcers, pterygiums, strabismus, chalazions, conjunctivitis in its various forms, entropium, ectropium, iritis, tear-duct diseases etc., etc., and therefore are not sufficiently comprehensive, and stop far short of a satisfactory solution of the trouble. And then, inconceivable as it may seem, no effort whatever is made to detect diseases or defects of the ear, nose or throat, which subject really overtops ocular abnormalities in magnitude, and numerical importance. Why should this tremendous subject be utterly ignored by the School Management Committee? Why should our children be allowed to be afflicted by adenoids, diseased tonsils, nasal obstructions and diseases, deafness, discharging ears, mastoid diseases, etc., simply because the School Management Committee does not or will not extend to the children of this city the necessary helping hand that would lead them to health and happiness? The ear, nose and throat questions, and the other essential eye questions, should be incorporated in these tests, and should not be excluded, as it appears has been contemplated by the School Management Committee. These additional questions would scarcely add any to the labor, and the beneficial results would be incalculable. If the School Management Committee would take advantage of the years of experience of medical men who have given this subject their best thought and judgment, and would purchase from the publishers the already conceived and printed charts, together with the teachers' instructions, instead of making a sporadic and non-

matured effort, which can only partially relieve the diseased and defective children, it would more fully and intelligently serve the interests of the citizens and tax-payers of this city. Let us hope that they will arise to the heights of true intelligence, and a true conception of their duties as office-holders in this commonwealth.

FRANK ALLPORT.

7 WEST MADISON STREET, CHICAGO.

CHRONIC ENLARGEMENT OF THE INFERIOR TURBINATED BODY WITH MULBERRY OR RASPBERRY FORMATION ON THE POSTERIOR PART.

By JOHN C. WARBRICK, M. D., CHICAGO.

These cases of chronic hypertrophy of the inferior turbinated body which I report along with mulberry formation on the posterior end it seems to me are somewhat unusual for their size and for their length, at least three of them, and also especially for the fact that the posterior extremity of all of them contained on the surface quite a distinct prominence, the shape, form and size of a raspberry or a mulberry. This formation did not extend through the whole posterior extremity of the turbinal body but seemed to form as an excrescence on the surface and only at the posterior part of the body.

More or less enlargement of one or both of the inferior turbinated is, of course, a common occurrence to find and in their whole length, in many individuals, but chronic permanent enlargement in the whole length of the bodies, as was found in these cases, with more or less thickening and adherence to the septum along with the raspberry formation posteriorly, does not seem to be so common nor to occur so frequently, forming as they all did on the same side of the nostril. In each case the enlargement was in the whole length of the turbinated body, and could not be reduced by the application of 1-1000 solution of adrenalin chloride or of a strong solution of cocaine. The enlargement was found on the left side in each instance, while the raspberry formation found on the posterior end of all of them was on the left side also.

Four of the cases were women, and one a man, while the oldest was a woman of fifty years. All of the cases were associated with chronic catarrhal conditions of the nose and throat, along with impairment of the general health, loss in flesh and weight to a considerable degree, stomach trouble, nervousness, also other conditions, some

of them tending to tuberculosis. It seems to me that chronic catarrhal conditions of the nose have a good deal to do in causing enlargement of the turbinated bodies and also to have some part in producing raspberry or mulberry formations on the posterior extremity or elsewhere. The inferior turbinals being the largest have, as it may be stated, more of an exposed surface than either the middle or superior that is subject to constant irritation from the outside and a good deal of irritation from within, so it would seem they are more liable to all kinds of changes than the others, and more affected by catarrhal conditions. The posterior end of the inferior turbinal is possibly more liable to changes or disease than the exterior, on account of being thicker and broader and more readily irritated. The part is terminally exposed and unprotected so it has to bear the strain of various conditions a good deal more than the exterior end.

In chronic catarrhal conditions, where the posterior extremity of the inferior turbinal is enlarged and thickened, the raspberry formation has been found. The thickening seemed to extend from the deep tissues to the superficial, and to form columns which tend to curve, also wind and assume the form of a raspberry.

If any person can tell why a raspberry forms the way it does, or a thimble berry, then perhaps some idea may be had of why this formation occurs on the turbinated body.

As to the cause and pathology there does not seem to be any definite opinion, while various theories have been advanced to account for them. Some regard them as a species of papilloma while others think they are more the nature of a fibrous polypoid formation.

Another opinion is that they are a variety of hypertrophic rhinitis, and this would seem to me to be nearer solving the origin of them than anything else, for all of the following cases were associated with chronic catarrhal conditions of the nasal passages, which are so very common, especially the hypertrophic form, so it would be only natural to suppose that such a formation could come into existence at times on the inferior turbinated body from catarrhal or inflammatory states, causing chronic enlargement and changes in the tissue, such as thickening.

It might be asked then, why in these cases did the formation in each instance occur on the left turbinated body and none of them form on the right body?

Raspberry formations seem to take their origin entirely from inferior turbinated body, forming mostly on the posterior end but sometimes at the exterior end, while from the fact that the inferior

turbinated body is more subject to catarrhal conditions than the other turbinated bodies, it would lead to the belief that they are associated with catarrhal states and more so the hypertrophic form.

Papilloma do not seem to be common on the inferior turbinated body, while their formation is different, so such an excrescence could hardly derive its origin from this source. Mucous and fibrous polypi take their origin mostly from the upper part of the nostrils, in preference to the lower, while raspberry formations seem to be local and associated closely with the tissue of the inferior turbinated body.

In these cases of complete enlargement of the inferior turbinated body, with raspberry formation on the posterior end, in each instance there was adherence to the septum towards the back part in four of them, with strong adhesions somewhat difficult to break down. In each instance the whole of the turbinal body was removed on account of being permanently enlarged, causing trouble and seeming to be of no further use.

1. Mrs. H., age 50. Mulberry or raspberry formation posteriorly. Hypertrophy of left infra turbinated body, with adherence to septum. Length $1\frac{3}{4}$ in. Width $\frac{1}{2}$ in. Impairment of general health and loss of weight.

2. O. C., age 32. Raspberry formation posteriorly. Hyp. of infr. turbinated body, with thickening and adherence to septum. Nasal conditions foul and general health bad. Length $\frac{3}{4}$ in.

3. Mrs. R., age 34. Raspberry formation posteriorly. Hyp. infr. turb. body, with thickening and attachment to septum. Tubercular tendency. Length $1\frac{1}{2}$ in., width $\frac{1}{2}$ in.

4. Mrs. T., age 36. Raspberry formation on the posterior end. Hyp. infr. turb. body, with adherence to septum. Hay fever. General health variable. Length 2 in.

5. Miss F., age 40. Raspberry formation on the posterior part. Hyp. infr. turb. body. Long standing catarrhal condition, impairing health with loss in weight. Length 1 in.

RESPONSE OF E. FLETCHER INGALS ON THE OCCASION
OF THE BANQUET TENDERED HIM APRIL 28, 1913.*

I find myself a sort of connecting link between the foundation of the college, three-fourths of a century ago, and the present; and, therefore, I think that I may say something of interest, especially to the younger men who are gathered here.

The history of the college may be divided into four periods:

1. That from the founding of the college in 1843 to the splitting off of the Chicago Medical College in 1857 (14 years).
2. The period from that time on to October, 1871 (14 years), at the time of the great Chicago fire, when all of the college buildings were destroyed and its location changed.
3. The period (27) years from 1871 to the date of our affiliation with the University of Chicago in 1898.
4. The period from 1898 to the present.

I cannot add much to the history of the first period, although my preceptor was one of the earliest graduates, and from him I naturally heard much of the college. But it is interesting to note, that during that period there were no requirements for preliminary education, the course in medicine consisted of two years of sixteen weeks each, and a few years of practice was accepted in lieu of one of these years. There were from seven to ten instructors and from twenty-two students the first year, up to 150 in 1857. The graduates during these years equaled about one-third of the whole class.

During the second period with the splitting off of the Chicago Medical College, N. S. Davis, H. A. Johnson, W. H. Byford and others withdrew from Rush and established what is now the medical department of the Northwestern University. At that time, among the new professors who came in were J. Adams Allen, Ephriam Ingals, DeLaskey Miller, Joseph P. Ross and E. L. Holmes.

During the latter part of this period Professor Blainey retired from the faculty, and Professor Lyman entered, and at the close of the period Professor Ingals retired and Professor Etheridge took his place in the regular faculty. During this period (1857-1871) there were twelve professors, and during the latter portion of it about as many more were teaching in the spring faculty. Among these were

*As noted in the May, 1913, issue of the MEDICAL RECORDER, a testimonial banquet was given at the Chicago Athletic Association to Dr. E. Fletcher Ingals, in appreciation of his forty-two years of service to the medical profession, to the science of laryngology, and to Rush Medical College.

We take pleasure in publishing Dr. Ingals' remarks on this occasion as an interesting contribution to the history of medical progress in Chicago.

Drs. James Nevins Hyde, Norman Bridge, Charles T. Parkes, Walter Hay, I. N. Danforth, James H. Etheridge and myself. During the latter portion of this period, the student body grew to about 300. The tuition fees were \$70 per annum from the founding of the college, until 1879. In 1868 the regular annual course was increased from sixteen to eighteen weeks. During this period no real requirements for entrance were in force.

THIRD PERIOD.

During all the years preceding the third period there had been an effort at gradual improvement in medical education, but the advances had not been great. The course had been slightly lengthened, and for a few years it had been supplemented by the spring course, for which no credit was given. This furnished the opportunity for extra study to a few students who wished to equip themselves better than the time devoted to the regular course would permit.

The spring faculty was made up of earnest workers, and the course was almost equal to the regular course. At the beginning of this period there were about twenty-five instructors all told, and an eighteen weeks' winter course.

There were no real requirements for preliminary education, although from 1860 to 1891 it was stated in the annual announcements that "such a preliminary education was needed, as was clearly requisite for proper standing with the profession and the public."

I think similar suggestions were made in the '40's, but during all the time up to 1891 the student himself was allowed to determine what education was requisite for these purposes, and naturally each adopted the standard best suited to his individual case.

In 1891, a year's advanced standing to college graduates was announced whereby they were enabled to graduate in two, instead of three years.

During this period, 1871 to 1898, the teaching force gradually increased from one to three each year, until at the end of the period there were seventy-nine teachers of all grades. The student body also increased from about 110 to 260.

In 1872 the course was increased to twenty weeks, and in 1880 to twenty-one weeks.

In 1885 the whole course was extended from two to three years, the first effect of which was to cut down the size of the class from 549 to 420.

In 1879 the tuition fee was advanced from \$70 to \$80.

During this period many of the older members of the faculty

were removed by death; but their places were invariably filled by men capable of carrying on the work.

During this period we found many excellent teachers, and one real jewel who took the chair of chemistry.

At the latter part of this period the course of medical study, required for graduation, was lengthened to four years of twenty-one weeks each, and the faculty and board of trustees passed resolutions contemplating much more advanced requirements, but these did not go into effect until after the affiliation with the University of Chicago.

FOURTH PERIOD.

At the beginning of this period the requirements for admission to the medical course were fixed for the first time in the history of the college. Believing that the profession was not ready for more, and as there were only two colleges in the country requiring as much as this, it was demanded that all persons entering the study of medicine in Rush Medical College must have had a course of four years in an accepted high school. These requirements were steadily increased year by year, until 1904, when two full years of college work was demanded as a prerequisite to the study of medicine. With the beginning of this period the course in medicine was lengthened to four years of thirty-six weeks each.

Our corps of teachers was gradually increased, until it now numbers 263, or more than one for every two students.

In the early part of this period the tuition fee was advanced from \$80 per annum to \$135, and this was steadily increased year by year, until in 1905 it reached \$180 per annum, which is about one-third of what it costs to give the instruction.

Prospective students were warned beforehand of these changes, so that there was no misunderstanding, and students were allowed to complete their course under all conditions in force at the time of entrance. One result of this policy was rapidly to increase the size of our classes from 700 in 1898, to 1,154 in 1903 (the last chance to get under the wire); but afterward, under the rigid requirements, the classes rapidly decreased in number, until we had only about 150 all told in the junior and senior years.

I now stand between the hoary past and the virile present, between the spirits of our honored predecessors and the warm-hearted friends who grasp my hand and whisper kind messages into my ear tonight.

I go back in memory to the closing days of the second period of our college history, and I recall vividly the characteristics of the dominant men in the faculty as they impressed me.

I entered the college as a student forty-four years ago this present week, under the tutelage of my uncle, Prof. Ephraim Ingals. I first came in close contact with Professor Blainey, an eminent chemist and an educated, polished gentleman, with whom I spent several months in the chemical laboratory.

I recollect Prof. J. Adams Allen as a fluent lecturer, thoroughly acquainted with the principles and practice of medicine, and having the faculty of impressing his audience with the important points of his subject. He was systematic in his teaching, and enforced the principles, instead of the details of his subject. He was fond of illustrating his subject by anecdotes, which often fixed the point forever in the minds of his auditors, but which, it must be admitted, not infrequently lost their value on some of the students who enjoyed the story more than the subject it was meant to illustrate.

Moses Gunn, a brilliant surgeon and a clear and systematic teacher. In that day there were no better lecturers.

J. W. Freer. A hard-working, unassuming professor, a poor lecturer, very difficult to listen to at first, but a man highly appreciated by all students, and one who, after the first course, I considered one of the best teachers in the college. He was a scientist admired for his great knowledge, and loved for his kindly personality.

Ephraim Ingals. A lovable, genial gentleman and good lecturer. He was a universal favorite with the students, although he taught a branch in which they had no very great interest. He managed the finances of the college for many years, and through his clear judgment and prophetic vision secured several of the most valuable members of the faculty.

DeLaskie Miller. For many years the polished professor of obstetrics. He was one of the best lecturers I ever heard, who had his whole subject on his tongue's end.

E. L. Holmes, later president of the college, was a man of excellent judgment, who for many years exerted a most salutary influence in the councils of the college.

Joseph P. Ross, who for many years occupied the chair of diseases of the chest, was on many accounts one of the most valuable members of the faculty and board of trustees. He was not so gifted as some of his colleagues as a teacher, but his ability as an organizer accomplished more for the physical welfare of the college than that of any other man, for many years. He it was who secured the location of the Cook County Hospital in its present site, and of Rush Medical College just across the street. He was the founder of the Presbyterian Hospital and the father of its relations to the college.

R. L. Rea, a large, dark man, about 6 feet 4, with piercing black eyes and the terror of poor students. He talked very rapidly, had his anatomy by heart and compelled the students to spend most of their study hours on his subject. He was a man of whom I was fond; but I did not happen to fall under his displeasure. Most of the students admired, but did not love him. Shortly after the fire he resigned, and his chair was filled by Dr. Parkes, who later became the professor of surgery. He was a man full of energy, a good teacher and an extremely hard worker. I have always felt that the pneumonia which took his life was the result of response to what he considered a call of duty when he was too ill to go out. Dr. Parkes was the lecturer on anatomy in the spring course when I first entered the college in the spring of 1869. Dr. Etheridge was at that time a lecturer in the same course on materia medica. Later he was professor of the same subject, and subsequently of obstetrics and diseases of women. He was an enthusiastic and interesting lecturer, full of plans for advancing the interests of the college. To his influence was undoubtedly due a great deal of the growth in the size of the classes, but he was also an ardent advocate of improvements in medical education.

Wm. H. Byford was one of the strongest characters ever connected with the faculty. He was a self-made man of remarkably clear judgment, and was honored throughout the nation for his skill. He was not only admired, but loved by all who knew him.

I would like to pay a lasting tribute to Professors Lyman, Senn, Hamilton and Hyde, all of whom played an important role in the development of Rush; but all of you knew them.

The late President Wm. R. Harper was the greatest man I have ever known. As an organizer and worker he had no peer. As a friend of better medical education and a promoter of the advancement of medical science he had no superior.

It is a duty to remember departed friends. It is a pleasure to contemplate the character of those who are still with us, but it is difficult to speak of them adequately in their presence; yet I must say just a word for a few of those who are with us. As the years pass I more and more appreciate constant, unswerving loyalty.

Time forbids me to mention by name the many others in this faculty who are giving the best that is in them for the betterment of humanity through our science.

There has not been found a group of firmer loyalty and loftier ideals than the men who are today active in the faculty of this college.

In the spring of 1871 I gave my first course of instruction in

Rush Medical College, on the subject of "Materia Medica and Therapeutics." My uncle, Ephraim Ingals, had taught this subject for a number of years in the regular course. From the time of his entrance into the faculty, at the beginning of the second period, he constantly worked for improvement in medical education, and had high ideals and great hopes for Rush Medical College.

After the death of Professor Brainard, in 1866, greater responsibilities fell on him, and he felt more keenly the necessity for improvements. But after several years of constant effort and many disappointments, he despaired of accomplishing what he desired, and concluded to give up the work. During the summer of 1871, he told me that he had decided to resign his professorship in the college, and that he could put me into his place if it were best. But he doubted whether it were wise at that time. I fully agreed with him, and was glad to have Professor Etheridge appointed in his stead, but I resolved at the time to take up the burden where he had laid it down, and to do all that in me lay to make of Rush Medical College one of the foremost medical institutions in this country.

I had no money and few acquaintances, and I realized that success in this undertaking depended on my "making good" in the profession; therefore, my every effort was made with this ulterior object in view. Even the reasonable demands of my home were made secondary. Social life was ignored, and I drove myself to work sixteen or eighteen hours a day. And this continued for many years. As a result of these labors, many professional honors came to me; but I cared nothing for them, excepting as they were an evidence of the good will of the profession and the esteem of my friends, and that they enabled me better to accomplish my purpose for the advancement of medical education. For several years I occupied only a subordinate position, and was not in the councils of the faculty, and therefore was able to do but very little in carrying out my resolution. But in the meantime I had gained a position which made my subsequent work more effective. When the University of Chicago was organized, and before a single building had been constructed, I met President Harper, and in a personal and non-official way, opened negotiations with the purpose of making Rush Medical College the medical department of the University of Chicago. These negotiations were continued over a period of several years, with varying hope and despondency. There were several times when the realization of these hopes seemed just within our grasp, followed by periods of hopelessness when failure seemed certain.

In the beginning my ambition had been to raise Rush Medical College to the position of the first medical institution in this country, but I gradually grew away from this point of view, and finally aimed only at the uplift of medical education and the advance of medical science regardless of whether it was done under the name of Rush Medical College, or the University of Chicago. During this time I interested my colleagues one after another in the proposition, and succeeded also in influencing the authorities of the university. I wish you could know of the hundreds of conferences that were held with many different men; very often with apparently not the remotest bearing on the subject at hand, but all with the same end constantly in view. President Harper at first was only casually concerned in the matter, but as time went on he became more and more interested. Many times I succeeded in convincing him of the importance of linking medical education with the university in order to make progress. And I succeeded in making him feel that great results for the benefit of humanity would come from training young men thoroughly in the art of medicine. I felt that it was important that the University should take up under-graduate work in medicine, whereas he and many of his faculty believed that graduate work was most desirable. Often on leaving him I felt that he was surely convinced of the correctness of my position, but on meeting him again I would find him of a different mind. However, he eventually came to believe in the principle himself, and from that time on, during the remainder of his life, he was our firmest friend. In these efforts to secure a union of some kind between the college and university, I always found Dr. Goodspeed a trusty ally. I was frequently encouraged by the sympathetic attitude of Mr. Ryerson, the clear judgment of Judge Baldwin, and the friendly attitude of Judge Smith. But it was not all smooth sailing even with my own colleagues, who changed their minds on several occasions.

One especially interesting incident occurred during this campaign. One evening a dozen trustees of Rush Medical College assembled in special session to consider the proposed union of the college with the university. Some of them, with prophetic vision, had seen the dangers we were to encounter, the sacrifices that must be made, and the possible disaster that awaited us. The subject was carefully argued for some time, and then a resolution was passed with only one dissenting voice, in which I was directed to notify the authorities at the university that all negotiations were at an end and that Rush Medical College did not wish to enter into any alliance

with the University of Chicago. This was a stunning blow to me that came at a time when there were several favorable symptoms in the negotiations. It meant to me, personally, utter failure in the task to which I had devoted myself. It meant relinquishing forever any hope of obtaining a union with the university, and I felt that it would ruin all of our chances of progress in medical teaching for many years. I therefore asked of the board that I be permitted to choose the time when I should present their resolution to the trustees of the university. In a spirit of pity the request was granted; but I have not yet found the right time to deliver the message. I believe that the affiliation of Rush Medical College with the University of Chicago has accomplished more for the uplift of medical education and for the advancement of medical science in this country than any other one thing that has occurred in a generation. The ramifications of our influence cannot be accurately traced, but in my mind's eye I see a hundred lines stretching out over the whole country that had their origin in a group of earnest and unselfish men in this college. However, the ultimate goal has not yet been reached, and you who have consecrated yourself to this task must work on and on, until the University of Chicago has a medical department that will furnish unexcelled facilities for the acquisition of the knowledge of medicine and for the advancement of the science to which we are devoted.

I highly appreciate the pleasant things that have been said tonight by my friends, but I learned long ago to make a liberal discount from such compliments lest my friends were mistaken. However, I must confess that sometimes when I take stock of myself, and estimate of the actual value of what I have done and of what I am, I am proud enough to think that I actually stand in the front rank of the profession when measured not by myself, but by the qualities and accomplishments of those whom I may count as true friends.

I thank you all for your kind consideration and hearty goodwill.

PROGRESS IN CANCER RESEARCH.*

The annually recurring Report of the Imperial Cancer Research Fund, which, for the eleventh time, was presented to the annual meeting of donors and subscribers, again affords a signal illustration of the difficulties by which inquiries into vital phenomena may be beset, and an example of the only method by which these difficulties can be surmounted. The extensive prevalence of cancer, the suffering attendant upon its course, and the considerable mortality which it has occasioned, have long rendered it a subject of great popular interest; and this interest was heightened, at one period, by a general belief in its dependence upon causes, such as diet or mode of life, which might admit of beneficial modification. It is an old medical saying that the number of "infallible" remedies offered for any disease will generally be in precise proportion to its incurability; and to this experience cancer furnished no exception. There were few people who had not heard of some wonderful recovery brought about by some apparently inadequate agency; there were fewer still who, among those known or dear to them, had not become acquainted with instances in which the best attainable skill had been employed in vain. In these circumstances it became evident that the occasion was one calling emphatically for the prosecution of systematic research into the actual facts of the case, and for the final abandonment of mere speculation and conjecture, which, so far, had been productive of nothing but confusion. The Imperial Research Fund was established upon a basis providing for the probable necessity of action continued over a series of years, and its managers were able, at quite an early period of its history, to demolish erroneous beliefs which had become widely prevalent. They were able to show that cancer is not peculiar to any race or country, that it occurs not only in man but in a very large number of the lower animals, and that it is independent of diet or locality. Statements about its greater prevalence in some places or countries than in others were soon shown to be due, in most cases, to the obvious sources of error which attend upon the uninstructed employment of so-called statistics; and the fact of its ready inoculability in some short-lived animals, such as mice, in which it is of frequent spontaneous occurrence, at once afforded much needed opportunities of testing, among many other questions, that of its liability to transmission by descent.

It is essential to scientific accuracy, as distinguished from mere opinion, or from a chance assemblage of "he says" and "they says,"

*The eleventh annual report of the Imperial Cancer Research Fund, London, England, as noted in the London Times of July 25, 1913.

that all the conditions of a problem should be known before any attempt is made at its solution, and that every step of the inquiry should be established and made secure before it is used as a possible stepping-stone towards further progress. The so-called education which is commonly given to the public, even to the more favorably situated sections of them, can scarcely be said to recognize this necessity; and hundreds of people who would be described as intelligent are ready to pronounce authoritatively concerning matters as to which it has not been fulfilled. They do not know all the conditions of the problem, whatever it may be; and they are quite ready to take an intellectual leap into space from some starting-point which is itself no better than a surmise. For such people a careful study of the eleven reports of the Cancer Fund would furnish wholesome opportunities of self-instruction. They would find in them that no difficulty had been evaded; that no hypothesis had been mistaken for an established conclusion; that nothing had been positively asserted until it had been placed beyond the reach of doubt, and thus rendered fit to form part of the superstructure of knowledge eventually to be built up within the scaffolding of inquiry. For the finished edifice we have still to wait; but enough has been completed to justify hope and to encourage perseverance. In the meanwhile the inquiry has not been without certain by-products of interest and importance. The lapse of a year has afforded a corresponding increase in the number of generations of mice which have been watched for evidence of an heritable tendency to the disease, and the general result agrees with that previously announced, the incidence of spontaneous cancer in mice of recent cancerous ancestry being nearly double that of mice of remote cancerous ancestry. It would seem from this that there may be a liability from inheritance which has a tendency to disappear in successive generations; but the report does not state this in a more explicit manner, and it may be that the data are not yet sufficient to support positive conclusions on the point. As in former years, the claims of certain suggested "cures" have been thoroughly investigated—the list not only including the plasters and other medicaments of quacks, but also preparations of colloidal metals which were not without some apparently scientific sanction. No justification for any of the claims was obtained; and the only reasonable expectation of curing cancer still rests upon its complete removal by the surgeon at the earliest possible time after it is discovered. By the general recognition of this fact, and by improved methods of operation, an early stage of cancer in an accessible position can scarcely be regarded now as involving any serious danger to life.

THE CHICAGO MEDICAL RECORDER

AND
JOURNAL OF THE MEDICO-LEGAL SOCIETY

EDITORIAL BOARD

DR. E. W. ANDREWS.	DR. FRANKLIN H. MARTIN.
DR. FRANK T. ANDREWS.	DR. JOSEPH MATTESON.
DR. CHARLES C. BEERY.	DR. FREDERICK MENGE.
DR. R. W. BISHOP.	DR. THOS. J. WATKINS.
DR. JAMES BURRY.	DR. SAMUEL C. PLUMMER.
DR. HENRY T. BYFORD.	DR. ARTHUR R. REYNOLDS.
DR. FRANK CARY.	DR. HOMER M. THOMAS.
DR. E. J. DOERING.	DR. H. H. FROTHINGHAM.
DR. JUNIUS C. HOAG.	DR. OTTO L. SCHMIDT.
DR. FRANK S. JOHNSON.	DR. D. A. K. STEELE.
DR. A. CHURCH.	

COMMITTEE ON PUBLICATION

E. J. DOERING	HENRY T. BYFORD
A. R. REYNOLDS	

Vol. XXV. No. 8.	PUBLISHED MONTHLY. Pullman Building	SINGLE COPIES 20 CTS.
NEW SERIES.	Chicago, Ill., August 15, 1913.	\$1 A YEAR IN ADVANCE.

Editorial.

POLICEWOMEN.

We congratulate Mayor Harrison and the council in having passed the ordinance and made it effective giving us the much needed policewomen. They will do an immense amount of good, particularly in the nefarious dance halls where liquor is sold. They will be able to advise young girls who are getting under the influence of liquor to go home and escort them thither, before falling an easy prey to the pimps and scoundrels who infest these places. Again a girl's self-respect is not irreparably ruined by being escorted home by a policewoman, as the case would be if it were a uniformed policeman. In fact, we wish we had one hundred policewomen instead of ten. In a recent visit East we had occasion to watch the beneficent influence of these women at a popular resort patronized by sailors, etc.

We hope with woman suffrage an established fact, the time is not far distant when the occasion for policewomen, probation officers,

juvenile courts, etc., will be obsolete by the abolition of the liquor traffic,—the root of all evil. A prominent distiller in this city told the writer a few weeks ago that he believed in ten years there would be absolute prohibition throughout the United States, as his trade was really indefensible!

Make the manufacture, the sale and distribution of alcoholic liquors punishable by a penitentiary sentence at hard labor for life, and the millenium will be here. God speed the day!

SHOULD HAVE WIDEST POSSIBLE CIRCULATION.

By request and with permission from the *Journal of the American Medical Association* we reprint herewith an editorial from the July 26th issue of that journal. It is not possible, of course, to reach all the people who have seen the various disgraceful attacks made on prominent men in that notorious sheet, *Jim Jam Jems*. No one can hope to overtake the tongue of slander, but this recent decision of United States Judge Willard with its far-reaching consequences should be given the greatest possible publicity:

"S. H. Clark and C. H. Crockard of Bismarck, North Dakota, edit and publish "Jim Jam Jems," a sheet that has printed not only obscene and indecent matter, but also personal attacks on numerous individuals and organizations, including the American Medical Association and some of its officers and members. To the interests it represents it has given value received. The publication has not been distributed through the mails, having, as we understand, been debarred from the use of the United States postal service; the express companies have been utilized instead. It may interest our readers to know that the editor and publisher have recently been found guilty of sending obscene matter in interstate commerce. Each has been sentenced by a United States judge to four years' imprisonment in the federal penitentiary and to pay a fine of \$2,000 and half the costs of the prosecution. Incidentally, the daily press has within the past few days reported the conviction of a newsdealer for handling this obscene sheet. The papers state that this is the first of a number of suits the government has started against other newsdealers."—*Jour. A. M. A.*, July 26, 1913.

AN IMPORTANT POSITION TO BE FILLED.

An examination for the position of Assistant County Agent was held by the Cook County Civil Service Commission recently, but nobody passed. Notice has been issued of another examination for this same position to be held on August 29th. It is desired to secure as

applicants for this position persons of considerable experience in charitable and civic work, as the duties are such as to enable the incumbent to help materially in shaping the policy of public outdoor relief in the county. The salary is \$2,500 per year.

We suggest that our readers call this examination to the attention of any qualified person whom they know and spread information in regard to it otherwise as they may have opportunity.

PUBLIC AMUSEMENT.

While Chicago has done much in the way of public amusement, concerts in the parks, public playgrounds, etc., much remains to be done.

First as regards music for the people—we should take a hint from the French and the Germans. Instead of a weekly concert in our principal parks, we should have daily concerts throughout the summer in all the parks: the school houses throughout the densely populated districts should be opened twice a week for dances or other amusements, and reading rooms opened every night. Bathing places ought to be multiplied tenfold; swimming instruction should be free and compulsory to all the children in the public schools.

Expense is no argument. As you furnish the people good healthy amusements, crime diminishes in direct ratio and the public is the gainer, both morally and financially. One evening spent in the tenement districts will readily convince the reader of the necessity of this community doing its full duty.

A CONTRAST.

We take pleasure in reprinting the following editorial from the *Cleveland Plain Dealer*, showing that the lay press is learning to discriminate between scientists and advertisers.

“Dr. George W. Crile of Cleveland has been elected to a fellowship in the Royal College of Surgeons of Great Britain, in recognition of his recently announced discovery of a method for the prevention of surgical shock. The honor goes only to men whose services have contributed materially to the development of surgery.

Prevention of shock in surgical cases means a decrease in mortality; it also means a great reduction in physical suffering. In these days when surgery is so freely used these two advantages constitute a notable offering to humanity.

How differently has Dr. Crile proceeded from another who drew

the attention of the world a few months ago with the claimed discovery of "a cure for tuberculosis." Dr. Crile has given his discovery to his profession and to the world, following the best traditions in medicine. No effort was made to exploit it or commercialize it. The other man sought to commercialize his supposed discovery, probably gained a large pecuniary reward but violated the best traditions of the medical world and committed an unpardonable offense against thousands of afflicted.

Who will live in the history of their profession, be considered a benefactor of his race, the Cleveland surgeon with his free offering to the afflicted, or a man who tried to commercialize a service and only succeeded in adding to the already tremendous burden of human woe?"

Book Reviews

HYGIENE AND SANITATION. A Text-Book for Nurses. By George M. Price, M. D., Director, Joint Board of Sanitary Control; Director of Investigation, New York State Factory Commission. 12mo., 236 pages. Cloth, \$1.50 net. Lea & Febiger, publishers, Philadelphia and New York, 1913.

There is not a single page in this book with which an efficient nurse should not be familiar. It contains in easily digested shape any amount of valuable material. It covers all the essential facts relating to hygiene of habitations, food, schools and school children, the hygiene of occupations, hygiene of municipalities, and finally personal hygiene. The book is not only excellent for the trained nurse but also valuable for the medical student. We commend it most highly.

A TEXT-BOOK OF BIOLOGY. FOR STUDENTS IN MEDICAL, TECHNICAL AND GENERAL COURSES. By William Martin Smallwood, Ph. D. (Harvard), Professor of Comparative Anatomy in the Liberal Arts College of Syracuse University, and in charge of Forest Zoology in the New York State College of Forestry at Syracuse. Octavo, 285 pages; illustrated with 243 engravings and 13 plates, in colors and monochrome. Cloth, \$2.75 net. Lea & Febiger, publishers, Philadelphia and New York, 1913.

This book of biology, a science indispensable in the study of medicine, cannot be commended too highly. It is one of the most interesting, as well as instructive works on biology with which we are ac-

quainted. It makes the subject one of great interest. It is splendidly illustrated and the text admirably arranged.

We desire to call special attention to the chapters on biological factors in disease, evolution, variation, heredity, and animal behavior and its relation to mind, all of which are worthy of careful perusal by the physician. The student will find this a most instructive book, various chapters on tissue and cells, embryology, protozoa, biology of cells, the plant kingdom, etc., will cause him to be interested in this science and become proficient in his studies. Many editions of this book will be called for.

PROGRESSIVE MEDICINE. A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Diagnosis in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical College Hospital; one time Clinical Professor of Diseases of Children in the University of Pennsylvania; member of the Association of American Physicians, etc., assisted by Leighton F. Appleman, M. D., Instructor in Therapeutics, Jefferson Medical College, Philadelphia; Ophthalmologist to the Frederick Douglas Memorial Hospital; Instructor in Ophthalmology, Philadelphia Polyclinic Hospital and College for Graduates in Medicine. Volume II. June, 1913. Lea & Febiger, Philadelphia and New York, 1913.

This quarterly digest contains the usual number of interesting articles, among which we may mention an instructive article on Hernia by Professor Coley of Cornell. Another most instructive article on Surgery of the Abdomen (exclusive of hernia) by John C. A. Gerster of Bellevue Hospital. A splendid review on Gynecology by Professor John G. Clark of the University of Pennsylvania. Professor A. Stengel of the same university gives a most valuable resume on diseases of the blood, diathetic and metabolic diseases, diseases of the thyroid gland, nutrition, and the lymphatic system. A brief but interesting article on ophthalmology by Professor Jackson of the University of Colorado closes this work so indispensable to every professional man who wishes to keep abreast of the times.

LABORATORY METHODS. With Special Reference to the Needs of the General Practitioner by B. G. R. Williams, M. D., member of Illinois State Medical Society, American Medical Association, etc. Assisted by E. G. C. Williams, M. D., formerly Pathologist of Northern Michigan Hospital for the Insane, Traverse City,

Mich., with an introduction by Victor C. Vaughan, M. D., LL. D., Professor of Hygiene and Physiological Chemistry and Dean of the Department of Medicine and Surgery, University of Michigan, Ann Arbor, Mich. Second edition. Illustrated with 43 engravings. St. Louis: C. V. Mosby Company, 1913. Price, \$2.50.

This is pre-eminently the book for the student and especially for the general practitioner who does not have the facilities for laboratory analysis as does his colleague in the larger cities. It teaches how analysis can be made quickly and efficiently at a minimum expense. It is a very practicable book and there is no excuse for any practitioner to omit examinations with such a useful and efficient guide to aid him.

Dr. Vaughan of Ann Arbor commends this volume most highly. The present edition has a few additions in the description of albuminous sputum test for tuberculosis, Bass and Watkins, rapid Widal method, Noguchi's Butyric acid test for syphilis, etc.

THE AMERICAN MEDICINE "CASE RECORD BOOK." Prepared and arranged by the editorial staff, American Medicine. Eighth edition. Published by American Medical Publishing Company, 84 William Street, New York City. Price, \$1.00.

This case record is excellent and leads in the right direction in teaching accuracy in observation, precision in diagnosis and conciseness in expression. We would make the suggestion that the next edition have the pages numbered. Also that by placing the "Gastric Contents," faeces, etc., on the opposite page, there will be left a little more space for the treatment and further progress of the case.

We hope that the young practitioners especially will start out in practice with a case record like this. It will be an unfailing source of regret in later years if this golden rule is unheeded.

COLLECTED PAPERS BY THE STAFF OF ST. MARY'S HOSPITAL (Mayo Clinic) for 1912. Octavo of 812 pages, 219 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$5.50 net.

This sixth volume of collected papers by the staff of the Mayo clinic contains all articles written and published in the various medical journals throughout the country during the past year. It is impossible, of course, to mention all these contributions by twenty-three members of the staff.

Among the number we may mention those written by Frank

Smithies on the glycyltryptophan and the tryptophan tests in stomach diseases, gastric ulcer without food retention; Maccarty and Blackford on lymphatic gland involvement in carcinoma of the stomach; articles by Wm. J. Mayo on jejunostomy, surgery of the large intestine, cancer of the rectum, treatment of prolapse of the uterus; Chas. H. Mayo on affections of the gastro-intestinal tract, surgery of the kidney, exophthalmic goitre; surgical importance of the thymus by Mayo and McGrath; H. Z. Griffin on hernia, splenectomy; Wm. F. Braasch on renal tumors; E. S. Judd on bladder, prostatectomy; Louis B. Wilson on splenomegaly, exophthalmic goitre; Gertrude B. Granger on refraction, etc.

DISEASES OF THE EYE. By George E. deSchweinitz, M. D., Professor of Ophthalmology in the University of Pennsylvania. Seventh Edition, Thoroughly Revised. Octavo of 979 pages, 360 text illustrations, and seven lithographic plates. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$5.00 net; Half Morocco, \$6.00 net.

It is only necessary to announce another edition of this magnificent and standard work on Diseases of the Eye by deSchweintz. There exists none better in any language, and few as good. Seven editions in ten years shows also the appreciation of this fact by the profession at large. It is hardly necessary to state that the book has been carefully revised and brought up to date. Among the new matter added we may mention Schiöetz's tonometer; Hertzell's opthalmodiaphanoscope, which makes it possible to examine all parts of the eyeball and orbit around and posterior to the globe; Widmark's conjunctivitis; rosacea keratitis; exudative retinitis; von Hippel's disease; Reese's muscle-resection operation; salvarsan in ocular disorders, etc.

DIET LISTS OF THE PRESBYTERIAN HOSPITAL, NEW YORK CITY. Compiled, with notes, by Herbert S. Carter, M. D., Assistant Visiting Physician to the Presbyterian Hospital, Associate in Medicine at Columbia University, etc.; 12mo of 129 pages. Philadelphia and London; W. B. Saunders Company, 1913. Cloth, \$1.00 net.

This little book can be commended most highly, as it gives much of value and is more likely to be consulted than the very large standard works on dietetics. It gives the various standard hospital diets, also the diet suitable in special conditions such as diarrhea, obesity, gastric test meals, etc. Everything is considered from a clinical

point of view, and the book therefore is of special value to the general practitioner.

GENITOURINARY DIAGNOSIS AND THERAPY. For Urologists and General Practitioners. By Dr. Ernst Portner, Specialist for Urology, Berlin, Germany. Translated and Edited by Bransford Lewis, M. D., B. Sc., Professor of Genitourinary Surgery, Medical Department of St. Louis University, St. Louis. Forty-three illustrations. St. Louis: C. V. Mosby Company, 1913. Price, \$2.50.

This book can certainly be recommended to the general practitioner, for it is eminently practical, concise, up to date, and full of good counsel and valuable hints and suggestions. The translator, Prof. Bransford Lewis, has also contributed to the value of the book by many useful additions. The young practitioner will find the many formulæ of great help. The illustrations are good and efficient.

Separate chapters treat of urinary diseases of women and children. We also find an appendix written by Dr. A. Sophian, of Kansas City, giving a complete and valuable description of the serological diagnosis and specific treatment of gonococcic infections, including the complement fixation test, giving the results obtained by Dr. L. E. Schmidt, of Chicago, and other observers. The results prove this test to be of great value in diagnosis and therapeutics.

As every practitioner has more or less to do in the treatment of genito-urinary diseases, and can not always avail himself of the services of the specialist, a safe, good and up-to-date handbook like the one before us will be of great service.

A TEXT BOOK OF MIDWIFERY FOR STUDENTS AND PRACTITIONERS. By R. W. Johnstone, M. A., M. D., F. R. C. S., M. R. C. P. E., Assistant to the Professor of Midwifery, Univ. of Edinburgh; Physician Accoucheur, New Town Dispensary; Extern, Ass'n Physician, Royal Maternity Hospital; Clinical Tutor in Gynecology, Royal Infirmary; Gynecologist, Livingston Dispensary; Fellow of the Obst. Society of Edinburgh. New York: The Macmillan Company, 66 Fifth Avenue. Price, \$3.50 net.

This text-book, written by Johnstone of Edinburgh, whose writings are well known in this country, will meet with generous recognition by the profession. In a concise and practical manner the author covers the science of obstetrics most efficiently.

The book is thoroughly up to date, and leaves no doubts in the reader's mind as to the best course to pursue in every obstetric requirement. Of special interest are the chapters on the physiology

and the pathology of pregnancy and labor. The section on operative obstetrics might be enlarged upon in future editions. But we take pleasure in recommending this as a splendid text-book for the student, who does not care for an exhaustive treatise on the subject and is contented with a smaller compendium. This book furnishes a middle-ground, excellent, up-to-date obstetrics, not too prolix, nor too condensed.

APPLIED BACTERIOLOGY FOR NURSES. By Charles F. Bolduam, M. D., Assistant to the General Medical Officer, Department of Health, City of New York and Marie Grund, M. D., Bacteriologist, Department of Health, City of New York; 12mo. of 166 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$1.25 net.

This book could not be improved upon. It teaches all that is needful for any trained nurse to know about modern researches in bacteriology. Indeed the book can also be recommended to the medical student and the general practitioner who has not devoted much study to the subject. It is fully up to date and emphasis has been laid on the practical application of the knowledge contained herein to the art of nursing. It is well illustrated and written in a way to make the whole subject entertaining as well as instructive.

BLOOD PRESSURE FROM THE CLINICAL STANDPOINT. By Francis Ashley Faught, M. D., of the Medico-Chirurgical College, Philadelphia. Octavo of 281 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Price, \$3.00 net.

Faught has given us a most valuable book and at a most opportune time. The use of the syphgmomanometer is becoming more and more general and while we have many specific works upon the subject there was needed a plain, practical monograph for the physician and student dealing with the clinical aspect of the subject, and this is what Faught has written. In whatever disease the syphgmomanometer has proved of use, in diagnosis or prognosis, he has treated of it fully. The descriptions of the different instruments and technique are comprehensive and clear. He takes up fully its relation to all forms of heart and kidney disease, its use in insurance examinations, in surgical and obstetric practice, explaining its value in diagnosis, prognosis, and as a means of carefully watching and estimating the results of a form of treatment. In short, it is such a book as the profession needs upon a subject as new and important as the application of the degree of blood pressure to abnormal conditions.

DIAGNOSTIC METHODS. Chemical, Bacteriological and Microscopical.

A Text-Book for Students and Practitioners. By Ralph W. Webster, M. D., Ph. D., Assistant Professor of Pharmacological Therapeutics and Instructor in Medicine in Rush Medical College, University of Chicago; Director of Chicago Clinical Laboratory. Third Edition, Revised and Enlarged. With 37 Colored Plates and 164 Other Illustrations. Philadelphia: P. Blakiston's Son & Co. Price, \$4.50 net.

We welcome the third edition of this work, which has become so deservedly popular that it is now classified among our standard and most reliable text-books on diagnostic methods. Only one year has elapsed since the former edition, but quite a number of additions are noted in this volume, as Darling's method of staining amebas, streptococcic sore throat, anti-typhoid vaccination, a very detailed and valuable description of Abderholden's sero-diagnosis test of pregnancy, etc. In short this book covers every point in a clear comprehensive manner, and is one of the books which every physician in active practice should have in his working library.

DIET IN RELATION TO AGE AND ACTIVITY. With Hints Concerning Habits Conducive to Longevity. By Sir Henry Thompson, Bart., F. R. C. S., M. B., Lond., etc. Twenty-eight Thousand. London and New York: Frederick Warne & Co. Price, \$1.00.

This book is one of the sanest and most sensible books on diet, especially for elderly people, with which we are acquainted. It can and should be recommended to all patients, especially middle-aged or those approaching old age. It is a most readable little book and full of sound, good common sense from first page to last, and justifies the quotation that "there is not a human being living but can be made happier, more useful to the world and longer valuable as a worker by proper attention to diet."

Abstracts.

HISTORICAL MEDICINE.

Insanity and Epilepsy in Ancient Times.—It is well known that insanity was familiar to the Egyptians, whose mentally afflicted were taken to the temples, where they were treated by the priests with incantations and sacrifices. Traditional medical knowledge in regard to the insane is said to have been carefully preserved in India. Among the Greeks, Æsclepiades constituted an hereditary order of priesthood, who were supposed to exercise curative powers over insanity; and there were Greek laws made 500 B. C. defining those lunatics who had to be confined. The Romans in their laws guarded the insane as well as their estates. Some of the earliest authentic cases of insanity, as well as of epilepsy, are related at considerable length in Holy Writ; for instance, the insanity of King Nebuchadnezzar, and also his recovery, after which it is recorded he was replaced as king upon the throne of Babylon. The history of King Saul, 1000 B. C., also relates his insanity, and there are several descriptions of epilepsy, the most typical being the only child, who was also a lunatic, for he “suddenly crieth out and foameth at the mouth and gnasheth his teeth,” and “oftentimes he falleth into the fire and oft into the water.” The ancients not infrequently ascribed epilepsy to the malice of demons, or to the anger of offended deities. If a person was seized with epilepsy in the forum, the Romans considered it an ill omen, the meeting was dissolved, and all public business was suspended for that day. Hence the disease was called *morbus comitialis*. *Morbus qui sputatur* was another of its names, because those present were accustomed to spit upon the epileptic, or into their bosoms, either to express their abomination and loathing, or to avert the evil omen.

The Madness of Kings.—The recent death of the aged Regent of Bavaria, and with it the reopening of the whole painful story of this ill-fated house, raises questions of peculiar interest in connection with the psychiatry of royal personages. It would appear at first sight that, if the moral and intellectual qualities of a sovereign can add to the enrichment and glory of a nation, the contrary should also hold good. It is remarkable to note, however, how little dependent the evolution of a nation really is upon the mental or physical health of its monarch. Moreover, the history of the House of Bavaria shows that a madman clothed in purple can on occasion be an excellent head of the State. The outstanding cases of insanity in reigning monarchs are not numerous. Perhaps one of the earliest to which historical

reference is made, is that of Nebuchadnezzar, King of Babylon, who suffered from lycanthropy, a form of insanity of comparative frequency in antiquity as well as in the Middle Ages. Beyond being afflicted with jealousy amounting almost to monomania, there is no indication that Saul, King of Israel, was insane. More recently Peter III of Russia, grandson of two great kings—Peter I on the maternal side, and Charles XII of Sweden—was a degenerate in the full meaning of the term. Paul I of Russia, his son, was sickly, weak, and epileptic from birth. He it was who proposed that the sovereigns of Europe should settle their differences by mortal combat. Although he imperiled the country by his extravagance and eccentric habits, the pathological history of Paul is interesting in that he was the superior of his father.

A Great Physician of the Middle Ages.—One of the famous Jewish physicians of the Middle Ages was Moses Ben Maimun, commonly known as Maimonides, who was born at Cordova, then one of the greatest centers of Arab culture, in 1135 or 1139. He was educated there, and after wandering about for several years with his family he became physician to Saladin, whose name is well known owing to his relations with Richard Cœur de Lion. Maimonides records that every morning he went to the palace, and if any of the numerous officials and dependents there were ill he had to prescribe for them, getting back to his own house in the afternoon, "almost dying with hunger." There he would find, in his own words, "Jews and Mohammedans, a varied crowd who are seeking any medical advice. There is scarcely time for me to get down from my carriage and wash myself and eat a little, and then until night I am constantly occupied so that from sheer exhaustion I must lie down. Only on the Sabbath day have I the time to occupy myself with my own people and my studies, and so the day is away from me." Maimonides wrote on philosophy as well as medicine. The most interesting of his writing was a series of letters on dietetics written for the son of Saladin, who seems to have been something of a neurotic, suffering from indigestion, constipation, and depression. The rules laid down by Maimonides have become part of the popular medical tradition. In view of the originality claimed by so many minor prophets of the present day for views that are almost as old as disease, it may not be amiss to give a summary of a few of them. "We should eat and drink only when hungry and thirsty, and should be particularly careful of the regular evacuation of the bowels and bladder. The inclination should as far as possible be satisfied at once. A man must not overload his stomach, and should not drink

much during the meal, and only of water and wine mixed. Food should be taken always in the sitting position. There should be no riding or walking or movement of the body until digestion is finished. We should sleep for eight hours, and so arrange our sleep that the end of it comes with the dawn, so that from the beginning of sleep until sunrise there should be an interval of eight hours. We should eat what is easily digestible before what is difficult of digestion—the flesh of birds before beef, and the flesh of calves before that of cows and steers. In the summer we should eat cooling food, acids, and no spices. Special care should be taken to have regular movements of the bowels. Every medical means should be taken to overcome constipation. Immoderate eating is a poison to men and the cause of many of the diseases that attack them. Most diseases come from eating either too much or unsuitable food. Every week at least a man should take a warm bath. He should not bathe when hungry nor after eating till the food is digested and should bathe the whole body in warm but not too hot water, and the head in hot water. Afterwards the body should be washed in lukewarm water, and finally cold water should be used. Bleeding should not be frequent; it is only meant for serious illness. After the age of 50 there should be no bleeding. Whoever observes these rule of life faithfully will live long without disease, and in the fullness of his years he will die a natural death. Only the healthy should keep these rules. Whoever is ill or a sufferer from any injury or has lost his health through bad habits, for them there are special rules for each disease only to be found in the medical books. Every change in a life habit is the beginning of an ailment.” Maimonides rejected astrology and was never afraid to say he did not know anything. He died in 1204, and his thought had a great influence on philosophy as well as medicine.

DEPARTMENT OF AGRICULTURE ADVISES THAT MILK BE PASTEURIZED AT LOW TEMPERATURES.

In order to determine the best way of pasteurizing milk so as to kill the disease germs and yet not give the milk a cooked flavor or lessen its nutritive value, the Department of Agriculture, through its Dairy Division, has been conducting a series of experiments, treating milk at different temperatures and for different lengths of time. According to the report on these experiments in Bulletin 166 of the Bureau of Animal Industry, when milk is pasteurized at 145° F. for thirty minutes the chemical changes are so slight that it is unlikely

that the protein (muscle building element) or the phosphates of lime and magnesia are rendered less digestible than they are in raw milk.

Moreover, from a bacteriological standpoint, pasteurizing at low temperatures is found to be more satisfactory than pasteurizing at high temperatures. According to Bulletins 126 and 161, where low temperatures are used the majority of bacteria that survive are lactic acid organisms which play an important part in the normal souring of milk. When milk is efficiently pasteurized at high temperatures, the bacteria which survive are largely of the putrefactive kinds, and milk so treated if kept for any length of time has a tendency to rot instead of sour. From the standpoint of economy, the technologist of the Dairy Division finds that pasteurizing at low temperatures calls for less heat. It is found that it takes about $23\frac{1}{2}$ per cent less heat to raise milk to the temperature of 145° F. than to a temperature of 165° F. A similar gain is a saving of the ice needed, because it will require $23\frac{1}{2}$ per cent more refrigeration to cool milk to the shipping point when it is pasteurized at the higher temperature. The department, therefore, recommends that "When market milk is pasteurized it should be heated to about 145° F. and held at that temperature for 30 minutes."

News Items

Personal.—Dr. Peter C. Clemenson has been appointed by Mayor Harrison to membership on the board of education.

Dr. and Mrs. Joseph Krost sailed for Europe on August 9th. They expect to return about the 15th of October.

Dr. and Mrs. John J. Muldoon are spending the month of August in Providence, R. I., and other eastern points.

Dr. and Mrs. Frank Wieland are spending the summer in Switzerland.

Dr. and Mrs. E. C. Dudley will spend the month of September at the Huron Mountain Club on the south shore of Lake Superior.

Among those attending the International Congress of Medicine in London are Dr. Cassius C. Rogers, Dr. John B. Murphy, Dr. Alexander Stevenson, Dr. Julius Hess and Dr. John J. Killeen.

The degree of D. Sc. was conferred on Dr. Ludvig Hektoen of the University of Chicago by the University of Michigan at its last convocation exercises.

Dr. John H. Long, professor of chemistry in Northwestern Medical School, has been appointed dean of pharmacy of Northwestern University.

Dr. James B. Herrick has gone to his summer home in Vermont and will not return to Chicago until October 1st.

Dr. and Mrs. David Monash have returned from abroad.

Dr. Maximilian Herzog has been appointed dean of Bennett Medical College and head of the department of pathology, bacteriology and hygiene.

Dr. Andrew M. Harvey announces the removal of his residence from No. 33 South Ashland boulevard, Chicago, to No. 345 North Spring avenue, LaGrange, Ill.

New Head for Hospital at Kankakee.—Dr. Patrick M. Kelly of Litchfield has been appointed managing officer of the Kankakee state hospital by the state board of administration on the recommendation of Gov. Dunne. He succeeds Dr. Sidney D. Wilgus, resigned.

Honors for American Surgeons.—The day of the opening of the International Congress in London, August 6, the Royal College of Surgeons conferred honorary fellowships upon Dr. J. B. Murphy of Chicago, Dr. George Crile of Cleveland, and Dr. Harvey W. Cushing of Harvard University.

Died—Frederick A. Leusman, A.B., M.D., LL.D., aged sixty, of 19 W. Huron St., Chicago, died at St. Joseph's Hospital on Sunday, August 5, 1913. Dr. Leusman had practiced his profession for nearly thirty years, and was the oldest medical tenant of the Reliance building at 32 North State street.

Electrocuted During an Initiation.—The investigation into the death of two men at Birmingham during an initiation into a local lodge of the Loyal Order of Moose discloses the fact that the magneto used was capable of generating 2,000 volts. When instruments of such power are used for such purposes it behooves those in authority to have an expert in charge.

One-Tenth Grain Costs \$5,000.—Mesothorium, it appears from a report from Essen, Germany, runs radium a close race for value. The city council there has appropriated \$5,000 for the purchase of one-tenth of one grain for the municipal hospital. It is to be used in experimental treatment of cancer. Private subscribers have given a further \$5,000 for another tenth of a grain.

The Walker Gordon Laboratory of Chicago discontinued the modifying of milk on physicians' prescriptions and retired from business June 30th, 1913.

The volume of business in filling prescriptions in Chicago has never been sufficient to make the business a paying one. Chicago specialists in infant feeding seem to prefer "home modification" of milk rather than to have the modifying done by laboratory methods.

The furnishing of Walker-Gordon ripened milk has also been discontinued.

With thanks to its patrons for the support which they have given it, the company gives this notice of retirement.

Bartzen Tablet Not for Hospital.—According to recent newspaper reports, the new county hospital will not be adorned with the customary

bronze tablets containing the names of those who authorized its erection or participated in its building, the county board having decided to omit the tablets and save probably \$600 thereby.

None of the members of the old Bartzén board, who approved the Gerhardt specifications, which already have brought the cost of the structure to more than the allotted \$3,000,000, protested against the motion to cut out the honorarium.

Members of the present board, who are confronted with the problem of raising nearly \$2,000,000 additional to undo the mistakes of the preceding board, displayed a willingness to let future generations remain in ignorance of the originators.

During a session of the special new hospital committee, consisting of the entire board membership, Architect Richard E. Schmidt revealed the possibility of getting credit from the contractor if the bronzes were dispensed with.

Good Roads for Illinois.—It will be welcome news to automobilists and others who are fond of the country to know that the state of Illinois has one million dollars available to spend at once for good roads. Governor Dunne's new good roads commission, composed of A. D. Gash of Chicago, chairman; James Wilson and S. E. Bradt, began its official existence on August 6, but the preliminary work of organization, consultation with the authorities of different counties, etc., will probably delay actual road building until next spring.

The International Medical Congress.—According to cablegrams to the daily press, the International Medical Congress opened on August 6 in Albert Hall, London, with most imposing ceremonies. Prince Arthur of Connaught, as the representative of King George, Sir Edward Grey, the secretary of state for foreign affairs, and Sir Thomas Barlow, president of the Royal College of Physicians, constituted the reception committee. The American delegation, headed by Professor Sidney Thayer of Johns Hopkins University, led the long line of delegations from the various governments.

Poet Laureate of England an M. D.—Although he is seldom called Dr. Bridges, the new poet laureate, like Keats, has studied medicine. Unlike Keats, however, and like two American poets, Dr. Oliver Wendell Holmes and Dr. Weir Mitchell, he persisted in his studies and gained a distinguished place in his profession.

Robert Bridges is 69 years old. He comes of a distinguished English family, being the son of John Bridges of St. Nicholas and Walmer in Kent, and a kinsman of the Rev. Thomas Edward Bridges, D. D., who was from 1823 to 1843 president of the Corpus Christi College, Oxford. At Eton and later at Oxford, Mr. Bridges was noted for his scholarship, but he found time to distinguish himself in athletics. He was an enthusiastic cricketer and oarsman. In 1867 he was placed in the second class in the final school of literae humaniores. After leaving the university he spent a number of years in foreign travel, familiarizing himself with life on the continent and in the far east.

On his return to London he became a student of medicine at St. Bartholomew's hospital, receiving in due course the degree of M. B. at

NEWS ITEMS.

Oxford. He then began the practice of his profession, being regularly attached to the staff at St. Bartholomew's hospital and of the Children's hospital in Great Ormonde street. Retiring from practice in 1882 he married and left London for his beautiful rural estate at Yattendon in Berkshire. Since that time he has devoted himself exclusively to literature, and particularly to poetry.

Condemns Abuses in County Institutions.—At a recent meeting of the ways and means committee of the Association of Commerce at the Hotel La Salle, Prof. Graham Taylor severely arraigned the abuses that have been allowed to exist in county institutions during the last few years.

"Something more than justice is needed," said Dr. Taylor. "There is a charity which must supplement our justice. When you see the political partisan raids that are made upon the great county charities and instrumentalities of justice; when you see the toilsome, building up process that took such men as Dr. Billings and such women as Julia Lathrop twelve years to complete, you will realize that these social issues have become political and that nothing but a new kind of social politics that will have some heart and conscience in it will prevent much frightful exploitation of the insane and tuberculosis patients, the blind and the aged, the widow and the orphan, and the Juvenile court. That foray is being followed up today with still further attempts to pull the very earth out from under the upbuilding agencies in the county of Cook and the city of Chicago—paid for out of the taxpayers' money.

"More of you men have got to get into this game. Those of us who are on to it are too few, and there has got to be a patriotism that will rise heaven high above partisan politics in the management of the great humane institutions of the state of Illinois, county of Cook and of the city of Chicago. In God's name, don't stand off and let this absolutely conscienceless attack continue. Just such men as you can stop it."

School Hygiene.—The Fourth International Congress on School Hygiene will meet in Buffalo, August 25-30. A splendid program has been prepared and papers will be presented by leading educators, health officers, physicians, and government officials. Section 3 will be devoted to "Medical, Hygienic and Sanitary Supervision in Schools." This section will present papers on the management, operation and results of medical, hygienic and sanitary supervision in public, private and special, country, village and city schools, colleges, universities and professional schools.

Such subjects as the following will be included: The control of health inspection; sanitary supervision; the organization of health departments in schools; the relationship to the board of health; the equipment, training and compensation of school physicians; school nurses; school clinics; relation of health supervision in the schools to the practice of the physician, the dentist and the hospital; relation of medical and hygienic supervision in the schools to health supervision in the home; standardization of examinations; sanitary supervision of school rooms, class rooms, locker rooms, swimming pools, toilets, school books and school furniture; supervision of disease carriers; prevention of

epidemics; follow up methods and results; medical inspection and treatment; standardization of records.

For details address Thomas A. Storey, Secretary-General, Fourth International Congress on School Hygiene, Colleges of the City of New York, New York City.

Panama-Pacific International Exposition.—Theodore Hardee, chief of the Liberal Arts department of the Panama-Pacific Exposition, has enjoyed a wide experience in exposition work, and should be able to make the liberal arts one of the most attractive departments of the division of exhibits. He was principal assistant to Walter B. Stevens, who was the general secretary and also director of exploitation for the St. Louis World's Fair of 1904. Prior to the opening Hardee spent considerable time abroad for that great undertaking, circling the globe as special commissioner with John Barrett, the commissioner-general to foreign countries.

While in St. Louis Hardee also acted as St. Louis representative of the Lewis and Clark Exposition of Portland, where he subsequently became assistant to the president. In this capacity he planned and directed all the special events and entertained at that very successful exposition.

Hardee first became associated with the Panama-Pacific International Exposition in a voluntary capacity during the spring of 1910. As secretary for the executive council of the finance committee he was of material assistance in that active campaign which resulted in raising the exposition subscription fund. He entered the exposition's employ in September, 1911, and during the winter of 1912 acted as secretary to President Moore during that official's visit to Washington. Upon their return Hardee was appointed executive officer of the commission extraordinary to Europe and accompanied that important mission to the fifteen European capitals.

On January 15, 1913, he was elected to fill the vacancy caused by the resignation of C. W. Horwick, chief of the department of liberal arts. Among the many interesting groups embraced in this department are medicine and surgery, chemical and pharmaceutical arts, instruments, etc.

The wonderful developments in medicine and surgery make certain a display of the highest importance and which will be of great benefit to the human family. The mechanical side of surgery will be represented by a complete collection of instruments and appliances used in this important field of human endeavor. There will be shown the most intelligent modern methods employed in the prevention and mitigation of the ills which beset mankind.

These exhibits will be housed in the Palace of Liberal Arts. The exhibits must of necessity be selective in character because of the comparative limitation of space which, by reason of wider participation and the world's more extended productivity, will be more restricted than at previous International Expositions. This will emphasize the advisability of applying for exhibit space as soon as possible.

THE CHICAGO MEDICAL RECORDER

SEPTEMBER, 1913

Original Articles.

THE NECESSITY FOR THE STANDARDIZATION AND UNIVERSAL ADOPTION OF MEDICAL SCHOOL INSPECTION IN THE UNITED STATES.*

By FRANK ALLPORT, M. D., CHICAGO.

It is, of course, unnecessary before an audience of this character, to make any appeal as to the necessity for medical school inspection. The members of this Congress are well aware of the universal urgency of this movement. Let us, therefore, assume that this matter is well understood, and let us then pass on to the next step in this great reform movement, viz.: the necessity for the standardization of such inspection. In other words, the advisability of adopting well matured and thoroughly digested plans of medical school inspection, in all the different states or cities of America, so that we may all be working under a universally adopted system in all parts of the country.

While the necessity for medical school inspection is generally conceded by all advanced hygienists, the means for putting the idea into action are as widely separated as the poles. Some observers advocate that such inspection be conducted under the auspices of the boards of health, while others feel that the boards of education are better, still others believe that both boards should participate in the work, and that certain conditions, such as physical defects, etc., should be assigned to the latter body, while all conditions which menace the public health should fall under the supervision of the boards of health. Some people believe that the physical defects and diseases of the eye, ear, nose and throat can be safely entrusted with teachers to detect (but not to diagnose or treat) provided a carefully prepared system of easy examinations is placed at their disposal and they are thoroughly instructed as to its use. Other people believe that this is

*Read before International Congress of School Hygiene, August, 1913.

strictly medical work and should not be entrusted to the laity; others still believe that such examinations should be made by especially instructed school nurses. Even when such examinations are made by school teachers (in places where they have overcome the idea that teachers are not competent to do the work, and that it is a great hardship to impose this labor upon them) the examinations are hardly ever made in the same manner for there is always some one in power (usually a doctor), who is unwilling to accept the experienced judgment of some one else, and who insists upon the insertion into the plan, of some unfortunate idea of his own, in order to impress upon the scheme the stamp of his own selfish personality. In some cities the medical inspectors are well paid and have great responsibilities imposed upon them, while in others their salaries are small and their positions are humiliatingly unimportant. School nurses are an essential part of the plan in some cities, while in others, these great aids to success are missing. The work demanded of the medical school inspector, his hours for work, his remuneration, his authority, etc., differs widely in different cities, and these diverging views also characterize the sentiments concerning school buildings and equipment, playgrounds, lavatories, baths, open-air schools, schools for defectives, etc., etc. And so I might go on, if necessary, and further demonstrate the inharmonious and chaotic condition of medical school inspection in this country, but additional evidence is quite unnecessary, as you all know that I am but speaking the truth. My object in reading this paper before you today, is not to demonstrate to you the necessity for medical school inspection, for this you already know; neither is it to expose the fact that there is not at the present time any generally adopted plan of procedure by which such inspections are carried out, for this you also know. What I really wish to do is to urge upon you the necessity for deliberately and thoroughly developing and adopting some superior and practical method of procedure, by which such medical school inspection can be properly standardized and carried out. I think that one of the first things to be understood is that while all schools should be medically inspected we must acknowledge that there must be widely different methods adopted in places of varying population. What will answer in New York, Chicago, Philadelphia, etc., will not answer in Santa Fe, South Bend or Schenectady, and the methods that are satisfactory in these cities will not answer for those cities, towns and villages of 5,000 or less in population.

Amongst other important features of medical school inspection may be mentioned the hiring of inspectors who can devote their entire

time to the work and the liberal paying of all inspectors; the clothing of inspectors with authority and then demanding that they "make good"; the distinct duties (concerning medical school inspection) which should be expected of boards of education and boards of health; the necessity, duties and salaries for school nurses; the teachers functions concerning physical examinations; school architecture, ventilating, plumbing, lighting, playgrounds, etc.; school desks, books, blackboards, cleanliness, sex hygiene, etc.; free lunches, free glasses, schools for defectives, schools for the deaf, dumb and blind, etc.; out-of-door schools, camping schools, etc., etc. These are some of the health topics upon which intelligent medical and pedagogic opinion should be able to form reasonably unanimous sentiments, and these crystallized and well-digested ideas should circulate from city to city, from town to town, from state to state, and from country to country, so that before long all schools shall be working under practically identical medical and hygienic laws, stripped of all personality and broadly and impersonally fashioned for the public good.

It should be remembered also, that while the ultimate object is the same in all countries, viz., the health and welfare of the coming generation, the method used to obtain this end must usually differ more or less in the varying lands. What will do for America will not do for Russia, and what is best for England may not be suitable for Italy. Therefore in considering the advisability and necessity of standardizing medical and pedagogic thought concerning medical school inspection and how it can best be carried out, it should not be forgotten that the conditions and necessities for all countries are not the same, and can hardly be made so.

In order to bring this question squarely before this Congress, therefore, I will take the liberty of suggesting that at the proper time some one will move that the president appoint a committee for every country represented at this Congress, to take up the subject of framing rules or resolutions concerning the necessity for the adopting and standardizing of medical school inspection in the different countries, and that these rules or resolutions shall be reported at the next meeting of this congress, and shall be acted upon at that time. The committee shall consist of six members of this congress for every represented country. Three of this committee shall be physicians and three shall be teachers. If for any reason the numerical strength of this committee for any country cannot equal six, the president shall use his discretion in appointing the committee, always, however, endeavoring to have a committee evenly balanced as to physicians and teachers. Should the committee from any country complete its labors before

the next meeting of this congress, they may publish their report in any suitable publication in order to expedite the benefits of their labors.

7 W. MADISON STREET.

THE TREATMENT OF GONORRHEAL VAGINITIS IN CHILDREN WITH AUTOGENOUS VACCINES.

MAURICE WOLFF, M. D.

The vast amount of investigation during the past year has accomplished a great deal towards putting vaccine therapy on a sound footing and has given it a definite place as a therapeutic agent of great value. Gonorrheal vaginitis is one of the diseases wherein vaccine has proven itself especially advantageous and it should certainly occupy first place as a method of treatment for this condition. This is especially true of the gonorrheal vaginitis occurring in children, as vaccines here seem to perform their duty in an almost specific manner, if given in a careful and judicious way. For all practical and clinical purposes, it is not necessary to go into the theoretical calculations of opsonic indices, as careful watching of the reaction and the clinical needs of each individual case will regulate the dosage and administration. It certainly means a great deal to the child who has been so unfortunate as to have been infected with this disease, to be able to be cured without treating locally those parts which are better left untouched by instruments, installations and irrigations. Vaccine not only cures these children but it does its work quickly. Hamilton averages the length of time of vaccine treatment in a large series of cases as 1.7 months compared to an average time of 10.1 month using active local treatment.

There are two groups of vaccines used in the treatment of gonorrheal vaginitis, namely: stock and autogenous vaccines. In using a stock vaccine one may choose the plain gonococcic or the mixed gonococcic vaccine, which contains the gonococcus plus several of the ordinary pus organisms. Stock vaccines will be dismissed with a few words, as they do not show a constant efficacy in the treatment of these cases and there is really no scientific basis for their use as a therapeutic agent. The stock mixed vaccine contains its mixture of organisms empirically and reminds one of the old "gun shot" method of taking a chance that some part of the contents will hit the mark and do the work. Stock vaccines will not

give uniform results and it is this fact which has, or might have, put vaccine in bad repute as a reliable method of treatment.

Autogenous vaccines, however, give one a scientific footing to start with and if used judiciously the results will show uniformity that will be very gratifying.

First, the question of strain is a very important one. The same bacteria may present itself in many different strains, the number of which is unknown. In using an autogenous vaccine, since each vaccine is made directly from each individual case, one is positive of the strain being the same, while in using the stock product, it is a matter of guess work as to whether the strain is the correct one or not.

Second, the vaccine used should be one made from fresh cultures, with no transfers on artificial media, because bacteria may change growing on artificial media and show changes from their growth in the human body. This again is an unknown factor in stock vaccine and a known quantity in the autogenous.

Third, there is only a certain life to a vaccine, for even when kept under the best conditions for preservation a certain vaccine is only usable for a short period of time, which, stated arbitrarily, will be about six weeks. In many of these older vaccines autolysis takes place and upon examination no bacterial bodies at all will be found. Such vaccines certainly will not give results, so it is important to use fresh products, and this one is only sure of obtaining by using the autogenous vaccine.

Fourth, gonorrheal vaginitis is practically always a mixed infection. With an autogenous vaccine the mixture of bacteria is the right one; only those organisms present in the discharge are contained in the vaccine and they are in their proper proportions for each individual case.

Looked at from all angles the autogenous vaccine is based on sound reasoning and scientific principles; for what one wants is present, the proportions are right, the strain is correct and the vaccine is fresh. With the stock product one cannot be sure of any of these conditions and it is this reason which makes stock vaccine a sort of guess work treatment with results in some cases where one has been lucky enough to have hit it right.

Preparation of the Vaccine.

As stated previously the discharge is usually a mixed infection, not including the non-pathogenic bacteria which may be found to inhabit the vagina. Besides the gonococcus the organisms usually met with are the staphylococcus, streptococcus, diplococcus (not

gonococcus), colon bacillus and pseudo diphtheria. Which of these are present, and their predominance is shown in the cultures made. The culture media used for the gonococcus is either human blood agar or hydrocele or ascitic agar. The other organisms grow readily on ordinary agar.

Five culture tubes are inoculated, three being of the special media and two of the plain agar. The tubes are incubated for 48 hours at 37° C., and the vaccine prepared, taking all the growth from all the five tubes. If the vaccine cannot be made at that particular moment, the cultures should be placed on ice to stop the growth. No transfers are ever made. Have the child take no local treatment for one or two days previous to the taking of the cultures. These precautions assure one of the vaccine being a fresh uncontaminated product. The vaccine is examined, killed and standardized in the usual manner and is best placed in ampoules but may be kept in a tube or bottle which requires very careful handling to prevent contamination.

Administration.

The vaccine is injected in the ordinary hypodermic manner and may be given subcutaneously, either in the arm, the leg or in the skin of the back.

The initial dose of the mixed autogenous vaccine should be 25 to 50 million. There are no contra-indications to the use of vaccine and there is nothing standard by which to judge exactly the initial dose to be used, although I have started the younger children and babies with smaller doses than the older cases. The reaction may be severe, slight or none at all. Local reaction is signified by an area of redness, heat, pain and at times some infiltration. The reaction varies in amount and readily disappears. Occasionally there is a constitutional reaction, consisting of slight fever, headache and nausea. The succeeding doses should show a graduated increase over the initial one. The amount to be given may be judged by the reaction and the clinical needs of the case. The interval between the injections should not be less than 5 or more than 7 days. Smears should be made at two weeks after first dose and then every week to determine any improvement and to note any bacteriological change in the discharge, as some organisms disappear more quickly than others. These smears are always two; one stained with methylene blue and the other by the gram method, counter-stained with Bismark brown.

If at the end of six weeks, the case still needs treatment a second vaccine should be made, because the first one had probably lost its

efficacy and also because there may be some bacteriological change in the case.

Results.

Forty cases were treated in this way with mixed autogenous vaccine. In all these cases no other treatment was used, except ordinary external cleanliness with mildly antiseptic solutions. Each case showed three negative smears, done one week apart with no treatment before being discharged as cured. Both a gram stain and a methylene blue stain were made each time.

Only one case returned after a period of two months with a recurrence. It has been one year since any of these forty cases were treated and as far as is known this one is the only recurring case.

The children averaged in age from one to 14 years and were injected at intervals of every 5 days. As soon as a negative smear was obtained treatment was stopped and the case watched as suggested. In only four cases was treatment continued and in these four a new vaccine was made. There was not a case which showed any constitutional reaction. No case showed severe local reaction; 12 cases had a slight reaction, and the remaining showed none at all. The smallest initial dose was 25 million and the largest 50 million. The time the child was known to have the disease before vaccine was tried was from one month to 1½ years. The number of injections given were from 4 to 10 and the average number was 7, which means 35 days as average length of time of the treatment.

The following table shows the points mentioned above:

TABLE SHOWING 40 CASES OF GONORRHEAL VAGINITIS TREATED WITH MIXED AUTOGENOUS VACCINES.

Age	No. Cases	Initial Dose	No. Injections	No. Cases	Time	No. Cases
1	2	25 M	4	3	1- 3 mo.	8
2	2	30 M	5	5	3- 6 mo.	12
3	1	30 M	6	12	6- 9 mo.	10
4	5	30 M	7	8	9-12 mo.	7
5	7	40 M	8	8	12-18 mo.	3
6	5	40 M	11	1	.....	..
7	6	40 M	12	2	.....	..
8	3	40 M	15	1	.....	..
10	1	40 M	..	..	.....	..
11	2	40 M	..	..	.....	..
12	3	50 M	..	..	.....	..
14	1	50 M	..	..	.....	..

Thirty-two of the above mentioned cases were hospital cases, with accurate records kept. Autogenous vaccine in gonorrheal vaginitis in children used in a careful manner is 100 per cent efficient. In women autogenous vaccine certainly shortens the time of treatment

and in many cases shows remarkable results when used in conjunction with the usual local procedures. In children, however, I believe vaccine should be the only treatment given. There is no tampering with the child's genitals or reproductive organs which in itself is a great thing for the child and moreover the cure is quick and harmless, as there is nothing to contra-indicate its use.

31 N. STATE STREET, CHICAGO.

THE INFLUENCE OF DISEASE UPON RACIAL EFFICIENCY AND SURVIVAL.*

By JAMES ALEXANDER LINDSAY, M. D., F. R. C. P.,
Professor of Medicine in the Queen's University of Belfast.

Disease usually presents itself as a problem for the individual. Its racial aspects have been far too little studied and are still very imperfectly understood. It is not easy to get a clear answer to such obvious and important questions as the following: Does a destructive epidemic leave a nation impoverished not only in numbers but in vigor, or cleansed and rejuvenated by the elimination of its biologically unfit members? Is endemic disease, still prevalent alike in civilized and uncivilized communities, a factor of selection or of degeneration? Is the individual who has passed successfully through one of the infections modified biologically in any way by this experience, and if so, is there any evidence that he transmits this modification to his descendants? Our view of many questions will be modified according as we incline to the view that disease acts selectively, as a biological detergent, or destructively as a biological contamination. Civilization, it is now generally admitted, runs counter to natural selection and tends to reduce it to a nullity. The lower animals and savage man are constantly exposed to the ravages of famine, of war and of disease. Civilized man protects himself successfully against famine and limits the operations of war. Disease remains, altering its character no doubt from age to age, but always present and always potent. According to some, it is the only factor of natural selection of real importance under the circumstances of modern life. I propose to subject this theory to scrutiny and analysis, not in the hope, or with the purpose of overthrowing it, but simply to point out its limitations and to suggest that the problems arising in this connection are of quite extraordinary complexity, and that we must be on our guard against any attempt to

*A paper read at the Paris meeting of the British Institute of Public Health, and reprinted from the *Eugenics Review*, July, 1913.

solve them by one-sided and sweeping generalizations. It may turn out that disease is a factor both of selection and of deterioration, that the two elements are inextricably intertwined, and that conclusions drawn from the study of one disease, or group of diseases, may require correction by reference to other diseases and other groups of disease.

It is not difficult to see why the subject of disease as a racial factor is still so obscure. Accurate diagnosis and the correct record of disease are of comparatively recent date. Ancient and mediæval medicine, e.g., the Hippocratic canon and the works of the Arabian physicians, may still be studied with interest and profit, but we cannot be sure we have the right clue to the correct interpretation of such records, or that we can identify their descriptions in terms of modern pathology. A crucial case is afforded by the Great Plague of Athens in the opening years of the Peloponnesian War. We have a minute description of that pestilence from the pen of one of the greatest of historians—Thucydides—who was himself a sufferer, but vivid and detailed as is his account, it is quite impossible to say with certainty what the true nature of the visitation really was. Grote's description of it as "an eruptive typhoid fever, distinct from, yet analogous to, smallpox" only provokes a smile from the medical reader.

Again, among the many causes—religious, political, economic—which have been assigned for the decay of the ancient civilizations of Greece and Rome, no historian has really faced the question how far biological causes, and in particular disease, contributed to that downfall, though this point of view has recently begun to attract attention. Neither Gibbon, nor Mommsen nor Grote raises this problem, nor does the most recent authority on the subject, viz., Seeck, in his valuable work, "*Geschichte des Untergangs der Antiken Welt*," show any true realization of its importance. The data relative to the subject are without doubt scanty and obscure, and we are left largely to conjecture or somewhat hazardous inference from facts which have not been collected with the view of throwing light upon this particular problem. But some broad conclusions are clear enough. There is evidence to prove that malaria first became a serious epidemic disease in Greece in the fourth century B. C., having been introduced in all probability from Asia Minor. The allusions to the subject in the Hippocratic writing and in Plato are somewhat obscure, but there can be no doubt that the disease became rife in the succeeding centuries, and it is a fair subject for inquiry how far the moral and economic decadence of Greece at this epoch was the result of or was at least accelerated by, a disease so pernicious and so far-reaching in its effects as malaria. The history of Italy and of Sicily under the Roman dominion and

subsequently suggests a similar line of reflection. We have isolated instances in early times of armies perishing or being decimated by disease, such, for example, as the failure of the Carthaginian invasion of Sicily in the time of the elder Dionysius or the collapse of the Sicilian Expedition of the Athenians under Nicias. But Sicily up to the time of Cicero was one of the great granaries of the Empire, and enjoyed great prosperity under a long succession of rulers down to the time of the Norman dynasty. How far its modern condition is due to war, social upheavals, deforestation, and over-taxation, and how far to the effects upon the national physique of the ravages of malaria is a question which has never been thoroughly worked out. The desolation of the Roman Campagna and of large tracts of Southern Italy is undoubtedly due in large measure to malaria. The chain of events has usually been of this nature—war, misgovernment, and economic causes have caused depopulation. Depopulation has led to a neglect of agriculture and to large tracts of land going out of cultivation. Uncultivated land has bred disease. Disease has caused further depopulation, and so we get the vicious circle.

There is abundant evidence that plague played an immense role in determining national and racial issues from the second century of our era down to later periods. To this subject I shall return. History requires to be revised in the light of the teachings of biology.

In essaying the difficult task of endeavoring to appraise the racial influence of disease, it will help us to a clearer recognition of the facts if we mark off our subject into certain more or less natural divisions. It must be understood that I can attempt only a slight sketch of a vast problem, and that in many instances it will be my duty to posit problems rather than to formulate conclusions. For the purposes of this paper I might be permitted to divide diseases into the following groups, viz.:

(1) The true pestilences, of which the most typical examples, are plague, cholera, typhus fever, smallpox, and influenza. These diseases are characterized by their capacity for wide dispersion and pandemic prevalence.

(2) The infective diseases of infancy and childhood—viz., measles, scarlatina, whooping cough, diphtheria, which form a natural group regarded from the racial point of view.

(3) Infective diseases of world-wide prevalence, of which the classical example is tuberculosis.

(4) Endemic diseases, such as malaria and enteric fever.

(5) Infective diseases depending on direct contagion, *e. g.*, syphilis.

(6) Diseases of doubtful causation, *e. g.*, rheumatism, gout.

The history of the true pestilences in the British Islands is somewhat as follows: From the year of the Black Death, 1348-49, plague was the grand infective disease of the kingdom for more than 300 years down to the sixth or seventh decade of the seventeenth century. It was always present and destructive, and it rose to epidemic proportions about once in each generation. It was attended by an enormous proportionate mortality, varying from 50 per cent to 80 per cent of persons attacked. It was essentially a disease of the poor, of insanitary dwellings and slum quarters. It cut off periodically about one-fifth or one-fourth of the population, including only an insignificant proportion of the well-to-do. "Its broad effect," says Dr. Creighton, "was to cut off the margin of poverty as if by a periodical process of pruning." It is clear from these facts that plague was in some degree at least a factor of selection.

Plague died out in England and in all the principal cities of Western Europe in or about the seventh decade of the seventeenth century. It was succeeded by typhus fever and smallpox, which were the principal infective diseases in England during the eighteenth century. These diseases showed some points of marked contrast. Typhus fever was a disease related to insanitary houses, over-crowding, cess-pools, intramural graveyards, to gaols, ships and armies. It was almost innocuous in presence of healthy homes, good food, and hygienic occupations. Smallpox was no respecter either of persons, ranks, or conditions. Practically every person exposed to contagion, unless protected by a previous attack or after Jenner's discovery by vaccination, became affected. The mortality from both these affections was high. It seems probable that typhus fever, like plague, had a considerable selective influence, while this cannot be predicated of smallpox.

The chief pestilences of the nineteenth century were cholera and influenza, the former falling chiefly on the first half of the century, the latter chiefly on the second half. The modern history of cholera dates from the outbreak in Lower Bengal in 1817. It obtained a footing in Europe for the first time, so far as records show, in 1829, and there were serious epidemics in England in 1832, 1849, 1854, and 1866. Like plague and typhus fever, cholera showed a marked preference for insanitary areas, and its ravages were mainly among the poor. Its racial influence, however, was probably almost inappreciable. It excited much alarm by its novelty, its sudden onset, its terrifying symptoms and its high mortality, but it was a comparatively rare visitant and the total loss of life to the nation was comparatively insignificant. Thus in the great epidemic of 1832 England

lost 21,000 lives out of a population estimated at 13,800,000 and Scotland lost 9,500 out of a population estimated at 2,300,000. These losses can hardly have had any effect upon the stock of the nation. Cholera, was, indeed, a friend in disguise, as cholera epidemics gave the first great impetus to sanitary reform in Great Britain and Ireland.

Influenza presents many points of contrast to the diseases already discussed. It shows no preference for insanitary areas or for poor populations. It spreads independent of class, locality, habits or occupation. Nothing in the environment protects from its assault. But while the attack rate is practically independent of circumstances, it is quite otherwise with the death-rate. The disease is comparatively innocuous to healthy persons in adolescence and early adult life, while it causes a considerable mortality in young children, and it is deadly to the aged, the asthmatic, and the phthisical. Thus in the great epidemic in England in 1847, during the three worst weeks, influenza raised the death-rate in the age of childhood 83 per cent, in the age of manhood 104 per cent, in old age 247 per cent, whereas the deaths between 15 and 25 were but little raised by it, and those between 10 and 15 hardly at all. While it is difficult to gauge accurately the class incidence of influenza, the evidence seems to suggest that in some visitations at least it has fallen more heavily upon the rich and well-to-do classes than upon the poor. It has been remarked that after epidemics of influenza the public health has been sometimes unusually good. This was the case in England in 1782 and in 1803, and perhaps in some later epidemics.

To estimate the racial effects of influenza is difficult. In so far as it is deadly to the aged and to the subjects of pulmonary disease, its effects would seem to be selective. But experience shows that its effect upon the individual is that of a nerve poison and a vital depressant. The low average mortality which has followed some epidemics of influenza is most probably explained as depending upon the large mortality which the disease involves for the aged and for persons of low vitality, whose premature decease lightens the mortality tables of subsequent years. There is no sufficient evidence, however, to suggest that the great recurring epidemics of influenza in the years 1890-94 have permanently depressed the stamina of European nations.

II. THE INFECTIVE DISEASES OF INFANCY AND CHILDHOOD.

It is a most interesting subject for inquiry what is the net biological effect upon the race of these diseases. How far do they pick out and eliminate children of feeble physique who are unfitted to sur-

vive? How far do they destroy children who, but for the accident of infection, would have become vigorous men and women? Is the child who has passed successfully through one or more of these affections braced and invigorated by the experience, or, on the contrary, vitally impoverished? Or, is recovery from these affections without appreciable influence upon the after life-history of the individual? These questions have seldom been asked, and at all events they have not received any authoritative or final answer. I do not pretend to answer them except in the most tentative fashion, and the more we reflect upon the facts cognate to this subject the more shall we be impressed by the extraordinary complexity of the subject.

Let us consider some of the obvious facts in connection with this subject and inquire in what direction they point. Measles is the most universal disease of childhood at the present day. Probably not less than 98 per cent of children suffer from it. It is more virulent now than it was in the eighteenth century, when Heberden reported it as so mild that a physician was seldom employed. While all classes are practically attacked equally, the mortality is insignificant among the rich, but very serious among the poor. The general health has much influence upon the mortality, the feeble succumbing easily, the vigorous seldom. The disease owes much of its importance to its proneness to be followed by sequelæ, especially phthisis and mesenteric disease. The general health is seldom improved, and frequently impaired, by an attack of measles.

Scarlatina presents some points of contrast. The attack rate is much lower than that of measles, many persons escaping permanently, in spite of repeated exposure to infection. The mortality is at present very low in all classes of society, but the disease in past times has shown extraordinary variations of virulence. Mortality depends more upon the type of the epidemic than upon the peculiarities of the individual. An attack often leaves troublesome sequelæ, and the general health is seldom improved, often impaired.

Whooping cough is now at the head of the infectious diseases of childhood in Scotland, and shares with measles the first place in England. It has little, if at all, declined during the past century. Few persons are naturally immune. Mortality is largely dependent upon social position and general health. Amongst the poor, the ill-nourished, the rickety, the poitrinaires, and the neurotic the mortality is very heavy.

Diphtheria is but little dependent upon social position, or hygienic surroundings. The attack rate is much lower than that of measles, scarlatina, or whooping cough. The mortality, formerly from 30 per

cent to 40 per cent has been reduced to half that figure or less by the use of anti-toxin. Social position and the general health have relatively little influence upon the death-rate.

We are thus confronted with a very complex series of facts. So far as it is possible to see our way in a very obscure problem, it would seem that the infectious diseases of infancy and childhood have a double operation. They undoubtedly remove a large number of children of defective vitality who, if they had survived the fatalities of their earlier years, would, at a later period have swollen the death-roll of tuberculosis and other maladies. But it is not less evident than many good lives are also sacrificed. Nature, if one may be permitted to personify her operations, does not carry out the weeding process on any uniform plan. The tares are not destroyed without damage to the wheat.

Several of the older epidemiologists were of opinion that the increased virulence of measles and scarlatina in England in the first half of the nineteenth century was due to the decline of smallpox. Their theory was that the child who had passed successfully through smallpox had undergone a hardening process which increased its resisting power to other maladies. We know from the testimony of Lettson that in the later years of the eighteenth century most children born in London had smallpox before the age of seven. But the facts seem capable of a simpler explanation than that involved in the above theory. The infectious disease which comes first in the order of time will be attended by the highest mortality because it eliminates the biologically unfit. That place was once taken by smallpox, later by measles, scarlatina and whooping cough.

III. THE INFECTIVE DISEASES OF WORLD-WIDE PREVALENCE, *e g.*, TUBERCULOSIS.

No medical question has received more attention in recent years than the cause, modes of propagation, and methods of prevention of tuberculosis. The disease is responsible for about one-seventh of the mortality of all ages and for nearly one-third of the mortality between the ages of 15 and 35. It is a ubiquitous affection, no country or race showing any decided immunity, but it is especially the scourge of urban populations, of overcrowding and poverty, and of unhealthy occupations. The disease is now on the decline in nearly all civilized communities, and in England the mortality has been reduced by not less than 50 per cent in less than half a century. It is noteworthy that this decline began soon after the repeal of the Corn Laws, and was co-incident with a rapid improvement in the social condition of

the lower classes—improvement in food, housing, clothing, and other matters. How far that decline has been accelerated by better knowledge of the causation of the disease, by segregation, and by improved methods of treatment is not easily determined, and is still a matter of controversy.

The racial significance of tuberculosis raises some most difficult questions which are still unsettled. The disease certainly “runs in families”—to use the popular expression—but how far that is explained by special proclivity and how far by propinquity is still debated. It attacks by preference those who are of feeble physique, but the exceptions to this rule are numerous and significant. Not seldom it carries off the most intellectual of men and the fairest of women. It is especially the scourge of civilization, and finds its explanation largely in the consideration that the human race is still imperfectly adapted to the conditions of civilized life, of which the life in cities is one of the main features. It is well known that when some of the primitive races come to reside in cities they are decimated by tuberculosis. This is true of the Laplanders, the Kirghiz of the Russian Steppes, and the Red Indians of North America.

It would seem that tuberculosis is, in the main, a factor of destruction and not of selection, that it is dependent mainly upon imperfect adaptation to the conditions of civilized life, that it can be successfully controlled by measures directed to the improvement of social conditions and the promotion of a higher level of nutrition.

IV. ENDEMIC DISEASES, *e. g.*, MALARIA AND ENTERIC FEVER.

Something has been said of the part played by malaria in relation to the ancient civilization of Greece and Rome. It is a factor of enormous importance in the modern world. To take one example—it is reckoned that in Italy there are two million cases of malaria annually with an average mortality of 15,000, and that the loss to the nation from the disease runs to many millions of lire per annum. Malaria devastates vast areas of territory in tropical and sub-tropical lands, and is the chief obstacle to the spread of civilization in many of these regions. It has repeatedly baffled the hopes of statesmen and modified the course of history. Its cause is now known, and its extinction is well within the capacity of medical science and practical statesmanship.

Malaria is, in the main, destructive and biologically vitiating, rather than selective in its effects. In many malarious districts practically every person is affected, and its prevalence is a cause of profound racial degradation—physical, intellectual, moral and economic.

A very interesting biological experiment is involved in the fate of British settlers in the malarious districts of West Africa. Miss Mary Kingsley informs us that they may be divided into four classes as regards their susceptibility to malaria, viz.:

- (a) A very small class who permanently escape infection.
- (b) A slightly larger class who resist infection for six months or longer.
- (c) A very large class who get repeated slight attacks, and finally a bad attack, to which they succumb.
- (d) A considerable class who die within a few weeks of landing.

These facts throw some light on the problem of immunity.

Malaria would appear to be a case where the injurious effects of disease upon the race are at a maximum, and the selective effects almost inappreciable.

Enteric fever as a racial factor presents some important and interesting problems. It is especially the scourge of new and rapidly-growing communities, and has intimate relations with defective hygiene and an imperfect water supply. It is not closely related to class or economic conditions, nor does it attack by preference the biologically unfit. There is evidence to show that residents in districts where the disease is prevalent acquire a certain degree of immunity, while newcomers into an infected area are very liable to attack. Enteric fever, like tuberculosis, is a disease of civilization and of urban life, and it can be controlled by two expedients—viz., by measures to cleanse the soil from faecal contamination, and by the provision of an adequate supply of pure water.

A consideration of the facts does not suggest that enteric fever is in any strict sense selective in its effects. It is in the main a factor of deterioration and of destruction.

V. INFECTIVE DISEASES DEPENDING ON DIRECT CONTAGION, *e. g.*, SYPHILIS.

The racial influence of syphilis is a subject with many ramifications. I can only touch it very lightly. For the purposes of the present paper, it may be said that its selective influence is practically nil, its deteriorating and destructive influence highly important, but controlled by the well-known law of reversion to the normal. The syphilitic virus is one of the most pervasive of racial poisons, and its evil influence is not easily exaggerated, but its capacity for perpetuation is limited. It dies out in two or three generations.

VI. DISEASES OF DOUBTFUL CAUSATION, *e. g.*, RHEUMATISM, GOUT.

It may suffice to say of these that they are important factors of racial deterioration, while their selective influence is slight or perhaps almost nil.

This rapid survey of the field of disease in its racial aspects suggests to us that the influence of disease upon the human family is two-fold—in part selective, eliminative, detergent; in part vitiative and destructive. We see clearly that there are no hard-and-fast rules, that the generalizations drawn from the study of one disease may be wholly inapplicable to another disease, and that the same malady may in various circumstances have diverse operations. It remains to consider briefly a few of the general problems arising in the course of the present discussion.

Does an attack of disease which is fully recovered from without sequelæ, leave the constitution of the patient fortified, deteriorated, or unaffected? This question has never received complete solution, and probably does not admit of any general answer. In the days when smallpox prevailed, physicians inclined to the view that the general health was in many cases better after an attack than before. The same view was held by many observers with regard to typhus fever. But the contrary would seem to be the case in regard to measles, enteric fever, and influenza. All these diseases tend in various degrees to depress the general health and in particular to increase the liability to infection by tuberculosis. Pneumonia, on the other hand, seems to leave the subsequent general health unaffected.

Is there any evidence to sustain the view that infective diseases tend to replace each other, and that the suppression of one of these maladies stimulates the activity of another? This is a very serious question for sanitarious. When smallpox and typhus fever were rife in the British Islands, measles, scarlatina, and diphtheria were either not very prevalent or relatively mild. Graves, writing in 1836, affirmed that typhus fever, then very prevalent in Dublin, had almost banished all other forms of infective disease. Thucydides records that during the great plague of Athens there was an extraordinary scarcity of other disease. The decline of scarlatina in England about the middle of the last century was coincident with the rise of diphtheria, which received a definite place in the British mortality tables for the first time in the year 1859. The recent decline of tuberculosis has coincided with a wider prevalence of pneumonia. These facts may be variously explained. They are at all events highly suggestive.

Has the activity of an infective disease any definite relation to the duration of its prevalence in any community? There is abundant

evidence that an infective disease, introduced for the first time or after a long interval, into an unprotected community exhibits peculiar virulence. The classical examples are the great epidemic of measles in the Faroe Islands in 1846, and in the Fiji Islands in 1875. But the converse theory, that a nation long exposed to any infective malady tends to develop an immunity to it, cannot be accepted without large reservations. If this theory were universally true, we should witness a steady and continuous decline of all infective diseases of long prevalence in any locality. But this is far from being the case. Typhus fever is almost extinct. Smallpox is successfully controlled. Tuberculosis is rapidly declining. But there is no good evidence that scarlatina, measles, whooping cough, or diphtheria is declining. Further, many infective diseases show periods of quiescence followed by periods of active virulence, not attributable to any known causes, and such phenomena are not easily reconciled with the operation of a law of gradually acquired racial immunity. The fact of selective immunity is not to be denied—perhaps the best example of it is the resisting power of the negro against malaria—but this law does not apply equally to all infective diseases; its operation is very obscure; it may be in various ways contravened. I am inclined to hope that a selective immunity against tuberculosis is being gradually evolved. The transmutation of acquired into inborn immunity by any race is denied by some, and the proof is difficult.

The relation of the subject of this paper to Eugenics might be thus defined. In so far as disease is a cause of racial deterioration, the Eugenist is interested in its prevention and elimination. In so far as disease is a factor of selection, the Eugenist is committed to the inquiry how that selective influence operates, what are its laws, how it can be controlled to secure the maximum of racial advantage.

THE ELIMINATION OF TASTE IN LAKE MICHIGAN WATER TREATED WITH CALCIUM HYPOCHLORITE.*

By DR. ARTHUR LEDERER,
Chemist and Bacteriologist, the Sanitary District of Chicago,
and

FRANK BACHMANN,
Assistant Chemist, the Sanitary District of Chicago.

It is surprising that the problem of removing the taste from waters treated with chlorinated lime has received such scant attention in this country. More water supplies are treated with chlorinated lime in the United States than in any other country of the world, yet while we frequently hear complaints about the taste of treated waters, complaints which very often are justified, we have heard practically nothing about the remedies. We even know of cases where high concentrations of chlorinated lime, accompanied by a taste have been accepted as an unavoidable evil, which could not be remedied except by decreasing the amount of chlorinated lime and consequently decreasing the efficiency of the disinfection process.

The first experiments on the removal of taste due to chlorinated lime were made almost twenty years ago by Traube,¹ who also was the first one to recommend it for the disinfection of water supplies, although its germicidal action was known before. Traube applied 4.26 mg. of chlorinated lime containing 1.06 mg. of available chlorine to one liter of the water, and added after two hours' contact 2.09 mg. of sodium sulphite ($\text{Na}_2\text{SO}_3 \cdot 7\text{H}_2\text{O}$). He claimed that an excess of sulphite up to 50% over the required quantity does no harm; for the reason that the salt is quickly oxidized in the water to sodium sulphate, which cannot be tasted in such low concentrations. For one million gallons of water Traube recommended 35.7 pounds of chlorinated lime and 16.8 pounds of sodium sulphite. The quantity of chlorinated lime applied may seem abnormally high in the light of more recent observations and experiences in this country, but it explains why the early observers were forced to look for means to remove the repugnant after-taste in waters thus overdosed. The need for remedial measures grew still more pronounced when later observers like Bassenge,² Sickenberger and Kaufmann,³ and Lode⁴ were led by laboratory tests to employ still larger quantities of chlorine in the form of chlorinated lime or sodium hypochlorite. Sickenberger and Kaufmann disinfected the turbid Nile water at Cairo with sodium hypochlorite equivalent to 2

*Presented at the Fifth Meeting of the Illinois Water Supply Association, Urbana, Illinois.

mg. of available chlorine per liter, which corresponds to about 50 pounds of chlorinated lime per million gallons of water. Bassenge recommended for disinfection on a large scale the enormous quantities of 2,445 pounds of chlorinated lime for a ten minute contact period down to 270 pounds of chlorinated lime for two hours^a contact. To eliminate the taste a quantity of calcium bisulphite, $\text{Ca}(\text{HSO}_3)_2$, somewhat larger than the quantity of chlorinated lime employed had to be added.

- Bassenge decided on the use of calcium bisulphite for the neutralization of the excess of chlorine with the advice of Dr. B. Proskauer. Calcium bisulphite is a saturated solution of calcium sulphite in sulphurous acid. It has the strong odor of that acid. On standing it decomposes, forming calcium sulphite and water. The reason Bassenge did not make use of sodium sulphite as did Traube, was that it forms sodium sulphite in sufficiently large quantities to have a marked therapeutic effect which would not be the case with calcium bisulphite. An additional reason was that the free acid present would more readily combine with the chlorine than would the neutral sulphite. No definite quantity of bisulphite was recommended since it rapidly changes on storage. The quantity had to be determined each time by actual trial. Lode likewise used excessive quantities of chlorinated lime and advised the use of either sodium or calcium sulphite for the neutralization of the chlorine after 5 to 10 minutes' contact. In a later publication^b he goes quite thoroughly into the question of removing the taste by various chemicals, of which he prefers the neutral sodium sulphite, but still recommends for disinfection quantities of chlorinated lime as high as 1,250 pounds per million gallons of water.

It is also interesting to note in connection with the early disinfection experiments, that acids were brought into contact with the water after the chlorinated lime has been added, in order to liberate the active chlorine which otherwise would not enter into the reaction. Lode adds for each pound of chlorinated lime about 1.2 pounds of concentrated hydrochloric acid. Citric acid likewise has been used in quantities of approximately 15 grains per gallon of chlorinated water for the same purpose. It is said that the taste was not influenced by the addition of the citric acid.

From the foregoing it must be apparent that even if the taste was effectively removed by the addition of various chemicals, the treatment of water supplies at that time must have proven too expensive to be considered anything more than a temporary relief measure in times of epidemics. As such the Traube-Lode process was employed during a typhoid epidemic at the Austrian city, Palo, in the fall of 1896 and the winter of 1896-97, by Dr. Meerans^c on the recommen-

dation of v. Kusy. A total of 450,000 gallons of treated water was supplied during that period and sodium thiosulphate ($\text{Na}_2\text{S}_2\text{O}_3 \cdot 5\text{H}_2\text{O}$) served for the elimination of the taste. The consumers became eventually used to the water in spite of its high turbidity resulting from the chlorinated lime treatment. Lode criticised the use of sodium hyposulphite in Pola and assumed that it had been used by mistake, since, in his earlier writings, he called the sodium sulphite "Antichlor," which as a matter of fact is the trade name for sodium thiosulphite.

The uncertainty of the quantity of chlorinated lime to be added to different waters and the almost general introduction of safer ground water supplies led the Germans to abandon altogether this treatment as a permanent procedure.

There are, however, industrial regions in Germany where similar conditions exist in regard to water supplies as in this country, which have caused renewed interest in the hypochlorite treatment. Such conditions are met with in the coal mining region of the Ruhr watershed and the disinfection of more than a dozen waterworks supplies carried on by H. Bruns⁷ with quantities somewhat smaller than those originally employed by Traube, gave, with two exceptions, very satisfactory results. The quantities of chlorinated lime varied between 12.5 and 25 pounds (containing approximately 33% of available chlorine), per million gallons. While complaints were frequent when the treated water was used by the consumers, the complaints ceased as soon as sodium thiosulphate was added as a routine measure. The compound was added 15 to 30 minutes after disinfection in quantities equivalent to 50 to 70% of the weight of the chlorinated lime. As spoken of above, the disinfection was a failure in two cases. In one case the organic contents of the water expressed as "oxygen consumed" reached as high as 30 p.p.m. and in the other case the water contained 2 p.p.m. of iron.

The good results obtained on adding taste removing chemicals induced us to believe that like results could be obtained in our "hypo" plants where the amount of chlorinated lime approaches the limit of recognizable taste. In some of our former observations⁸ we found that 0.6 p.p.m. of available chlorine (equivalent to 15 pounds of chlorinated lime per million gallons) was about the smallest quantity which could be readily tasted but it is a fact that even smaller quantities are discerned by sensitive non-smoking consumers, particularly when the temperature of the water is high. We should remember that in plants where smaller quantities, such as 6 to 8 pounds of chlorinated lime per million gallons, are employed, accidental overdosing followed by a flood of complaints, is frequent. W. H. Dittoe and R. F. MacDowell⁹ in

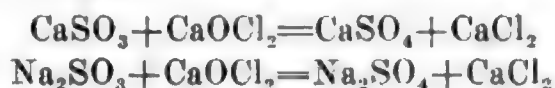
reporting on the result of an inquiry among a large number of cities in United States and Canada, in which "Hypo" treatment is installed, state that a taste is not often noticed when chlorinated lime is applied in quantities of 7 pounds per million gallons or less, but that there is often complaint on using larger quantities. However, with certain waters even smaller quantities may produce tastes and odors. It would then seem an advantage to apply a "sure cure" remedy if this can be done without materially influencing the cost of the treatment. Our tests have been made on Lake Michigan water and, while the relation of the chlorine to the chemicals applied theoretically remains the same, it is possible that the actual quantities would require adjustment with different water supplies.

We know that storage of chlorinated waters by itself is a simple method by which to rid the water of the taste, depending on the time allowed for this purpose. The chlorine taste in lake water treated with 12.5 pounds per million gallons disappeared, at room temperature, in a little over 3 hours. Simple aeration will hasten the disappearance, reducing the time to something like 2 hours with the same quantity of bleach. The amount of air applied was 0.3 cubic feet per gallon of water. It may also be stated here that the elimination of the taste coincides well with the disappearance of the potassium iodide-starch reaction. There is no definite chemical reaction taking place on aeration which would account for the speedier elimination of the taste: the chlorine seems to be carried off by the air bubbles passing through the liquid. On a large scale a prolonged storage period or storage with additional aeration would be in most cases not a practicable procedure.

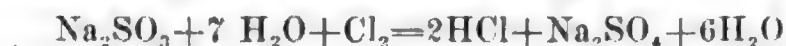
Contact of chlorinated water with wood charcoal will quickly do away with the chlorine taste but the water in our experiments absorbed certain ingredients from the charcoal which, by themselves, resulted in a pronounced taste. Whether other carbonaceous material will give like results we do not know, but it is probable that sedimentation or filtration would be subsequently required to rid the water of the matter in suspension.

The chemicals which seem of value for the purpose of removing the chlorine taste from waters are sodium sulphite and sodium thiosulphate, both of which are strong reducing agents and form tasteless compounds when brought into contact with chlorine. The calcium sulphite and calcium bisulphite which have been employed by some early observers have not been utilized by us for the reason that they are not readily obtainable and too expensive for practical application even when bought in bulk. The calcium sulphite, $\text{CaSO}_3 \cdot 2\text{H}_2\text{O}$, is only sparingly soluble in water; the calcium bisulphite, $\text{Ca}(\text{HSO}_3)_2$,

is very unstable on account of the presence of free sulphurous acid and it is not a commercial preparation. When coming into contact with chlorinated lime the reaction is analogous to the one taking place with sodium sulphite:



Our experiments on the neutralization with sodium sulphite were made on lake water treated with chlorinated lime as well as free freshly generated chlorine and practical tests coincided well with the theoretical quantities of chemical as determined by calculation. For 0.01569 gm. of bleach containing approximately 33% of available chlorine 0.01815 gm. of crystalline sodium sulphite were required, or 1.2 pounds of sulphite for each pound of chlorinated lime. When free chlorine is employed the reaction taking place is:



One pound of liquid 100% chlorine would necessitate the addition of approximately 3.6 pounds of crystalline sodium sulphite for neutralization. An important point to keep in mind is that it takes as much sulphite for the free chlorine as for the total available chlorine in chlorinated lime to remove the taste of treated waters. The reaction between the sulphite and the chlorine takes place instantaneously, thus removing the taste as well as the odor at the same time. No harm can be done with a reasonable overdose since the sulphite could not be detected in such low concentrations. Furthermore, it would take but a very short time for the dissolved oxygen in the water to convert the sulphites into sulphates. Medicinally the sulphites are of low toxicity and fairly strong antiseptics on account of their ability to withdraw oxygen from organic matter, but they are rarely used nowadays for that purpose. The average medicinal dose is 15 grains. Supposing we overdose a treated water containing 10 pounds of chlorinated lime per million gallons with 50% of the quantity of sulphite required, which would be an excess of 6 pounds, one would have to drink about 370 gallons of the water to get a single medicinal dose, not considering any oxidation into sulphates at all. Since the medicinal dose of the sodium sulphate, which is formed in the reaction, is 240 grains, its therapeutic effect is surely negligible. The wholesale price of crystalline sodium sulphite is approximately 4 cents per pound when bought in 100 pound lots. This would add about 125% to the cost of the chlorinated lime, assuming that the market price of chlorinated lime containing 33% of available chlorine is $2\frac{1}{8}$ cents per pound. Considering the benefit to be derived in many cases from the

use of the sulphite, the additional cost would not seem unreasonable. There are, however, serious drawbacks to the continued use of sodium sulphite, one of which is the fact that it deteriorates readily, forming sulphates, which of course are completely inert as far as the taste-removing property is concerned. Weak solutions in particular will change from day to day. We have noted N/40 sodium sulphite solutions to weaken over 50% in less than a day. The aqueous solution of the sulphite is neutral or feebly alkaline and has a cooling, saline sulphurous taste.

The sodium thiosulphate, $\text{Na}_2\text{S}_2\text{O}_3 \cdot 5\text{H}_2\text{O}$, as first applied in Pola and recently recommended by Bruns, has striking advantages over the sodium sulphite. It is commercially used very extensively as "Anti-chlor." When sodium sulphite comes into contact with chlorine the reaction taking place is the same as with iodine. With thiosulphate the oxidation is more complete, and this therefore alters materially the proportions of chlorinated lime and thiosulphate necessary to do away with the taste and odor. The reaction is as follows:



The acids formed in the neutralization process immediately combine with basis to form neutral salts. Lode stated that in his experiments he found it impossible to establish quantitatively corresponding values of chlorine and thiosulphate, and he recommended 0.8 to 0.9 of the quantity of chlorinated lime for the purpose of taste removal. Bruns recommends values of 50% to 70% of the quantity of chlorinated lime applied. As a matter of fact, it seemed impossible in our experiments to obtain checks when a chlorinated lime solution was titrated with a thiosulphate solution under addition of potassium iodide and starch in the absence of acid. Of course, when acid was added and all of the available chlorine became liberated, checks were readily obtainable. This was likewise the case when the same definite quantity of potassium iodide was added, each time without acid, and the solution immediately titrated. We have found, however, that the theoretical quantity of thiosulphate necessary to complete the reaction and remove the taste as well as odor coincided always with the amount necessary to satisfy the total available chlorine in the chlorinated lime employed. For one pound of chlorinated lime containing approximately 33% of available chlorine, the theoretical quantity would be 0.28 pounds of crystalline thiosulphate, or approximately 30% of the weight of the chlorinated lime. One need not be afraid to add an excess, since even 100 pounds of thiosulphate in one million gallons of pure water cannot be tasted. As a matter of fact, we should

strongly recommend the application of thiosulphate in quantities of one-half of the quantity of the chlorinated lime to be on the safe side at all times and to take care of all reasonable overdosing with chlorine.

The commercial sodium thiosulphate is about 98% pure; it is a colorless, odorless salt possessing a cooling taste, afterward bitter. It is very stable in air below 92 degrees F., but loses moisture above that temperature. It greatly exceeds the chlorinated lime in stability. The salt is readily soluble in water and neutral or faintly alkaline in reaction. The medicinal dose of thiosulphate is the same as that of the sodium sulphite. Formerly it has been used to a limited extent as a weak antiseptic. The price of the commercial preparation is about 1.85 cents per pound when bought in 100 pound lots; it is therefore cheaper than chlorinated lime.

To summarize the advantages of the sodium thiosulphate over the sodium sulphite, we would say that it is much more stable, much cheaper, and that it requires less in actual weight to accomplish the same result. The combined cost of the treatment is within easy reach of a community, since it adds but 40% to the cost of the chlorinated lime, and the advantage of its application will best be appreciated in places where taste troubles are frequent. Even when less than the theoretical quantity of thiosulphate is added, it is bound to lessen the frequency of complaints. A very important point to keep in mind when such treatment is resorted to is that the thiosulphate stops the germicidal action of chlorine the moment it comes into contact with the treated water. This is not of serious consequences, however, since we know positively that the destruction of bacteria by the chlorine is extremely rapid and in most cases practically completed in the first five minutes. We should recommend, however, at least 10 to 15 minutes as a safe margin, or even more when conditions warrant. When the chlorinated water is stored, the simple addition of the thiosulphate in solution will suffice, care only being required to obtain a fair distribution. There is not much chance for the thiosulphate to unite with substances other than chlorine, since those compounds have a pronounced chemical affinity. Where the treated water is directly discharged into the mains, without previous storage, provisions will have to be made to dose the treated water continuously with thiosulphate at a point where disinfection has been practically completed. The thiosulphate does not attack metals, and therefore would not cause trouble in the dosing chamber, as does the chlorine. Where quantities like 2 to 5 pounds of chlorinated lime are applied and the dosing can be made reasonably automatic, the application of thiosulphate will hardly seem necessary. However, where larger quantities

are required and taste troubles ensue, our observations would lead us to recommend the application of sodium thiosulphate as a permanent procedure.

DISCUSSION.

Jennings: There has always been a question in my mind whether the taste in the filtered water at the Bubbly Creek plant at the Chicago Stock Yards is due to an overdose of hypochlorite, or whether it is due to a combination of hypochlorite with organic matter, etc., present in the water. This taste is not always present, and it is not exactly similar to the taste of an overdose of hypo. Some four years ago I carried on a series of experiments of taste elimination with sodium thiosulphate, in quantities ranging from 0 to 2 grains per gallon. I obtained negative taste removal results on these experiments, even using as high as 2 grains per gallon. Last year, at the meeting of the Illinois Water Supply Association, Mr. Clark of Toledo spoke about the trouble that had been experienced there with the use of hypo, due it was thought, to the absence of CO_2 , either free or half-bound, which prevented the decomposition of the hypochlorite. In making experiments following out this suggestion, I was able to remove the taste of an overdose of hypo in city water using as high as 250 pounds per million gallons, which is about twenty-five times as much as is needed to treat Lake Michigan water. When it came to removing the taste in the filtered water overtreated with hypo, by passing CO_2 through in the same manner as with the city water, the taste remained. I came to the conclusion that the taste in the Bubbly Creek filtered water must be due to something other than the excess hypochlorite itself.

Lederer: The case which Mr. Jennings presents is exceptional, since that water is extremely polluted and there is a chance for the chlorine to combine with substances which would not be found in a slightly contaminated water. As to the carbon dioxide, very little work has been done on its relation to oxidation with hypochlorite, but it was recognized years ago that an acid, no matter how weak, must be present in order to obtain the full benefit of the oxidizing agent. When the first experiments were made, about thirty years ago, the application of hypochlorite in combination with an acid was recommended. The amount of chlorinated lime recommended by some was enormous, often exceeding one thousand pounds per million gallons. Of course such a treatment was very expensive. Some observers recommended the addition of hydrochloric acid, others citric acid, for the same purposes.

Clark, W. G.: The very excellent paper by Dr. Lederer and the

remarks by Mr. Jennings are both very timely in view of the rapidly increasing use of calcium hypochlorite.

A year ago I touched very briefly upon the fact that difficulties were experienced in many places in the use of hypochlorite, and expert supervision of its use was of great importance.

The water supply of Toledo, Ohio, is derived from an arm of the lake in which there is a very heavy vegetable growth, consisting largely of what are locally known as lotus plants, the leaves and stems of which carry a considerable amount of resinous matter. The freezing over of the river is followed in about a week by an unfortunate taste which persists for a week or ten days. The breaking up of the ice in the river is similarly followed by the same taste for about the same period of time. The use of hypochlorite at such times increases the bad taste. Even small amounts of hypochlorite will increase the taste very appreciably, and the increase seems to be directly proportional to the amount of hypochlorite used.

In general it has been found most satisfactory with this supply to apply the alum solution after the addition of the hypochlorite. This method of applying the two chemicals has been found economical, as the use of the hypochlorite has permitted a considerable reduction in the alum used. Nothing has been done with this supply at present to eliminate the taste.

Dr. Lederer's paper is especially interesting and instructive, and what is more important, gives recognition to the fact that hypochlorite, instead of solving all the difficulties incident to an impure water supply, may really produce troubles of a serious character.

BIBLIOGRAPHY.

- 1—Z. Hyg. 1895, p. 227.
- 2—Z. Hyg. 1895, p. 227.
- 3—La stérilisation de l'eau par l'hypochlorite de sodium. Le Progrès. Journal Quotidien paraissant au Caire. Dec. 13th, 1894.
- 4—Arch. Hyg. 1895, p. 236.
- 5—Hyg. Rundschau 1899, p. 861.
- 6—Die Typhusepidemie in Pola im Herbst 1896 und im Winter 1896-1897. Österr. Sanitätswesen. Beil zu No. 52. Dec. 29th, 1898.
- 7—J. Gasbel. 1912, p. 649-56.
- 8—Proceedings Ill. Water Supply Assn., 1912, 184.
- 9—Monthly Bulletin, Ohio State Board of Health, October, 1912.

LIMITATIONS OF THE FEDERAL FOOD LAW.*

By DR. CARL L. ALSBERG,

Chief Chemist, U. S. Department of Agriculture

Forty-eight states must rigidly inspect and control all easily contaminated foods and drugs produced within their borders. These include such foods as milk and other dairy products, water, fish, shellfish, many meat products, candy, and, indeed, all food that is eaten raw or shipped exposed to the air. Each state owes this protection both to its own citizens and to those of other states who buy its products.

The individual state must guard the health of the state. The Federal authorities cannot do this work for the states. The Federal authority, under the Food and Drugs Act, extends only to food products entering into interstate commerce, and transmission of disease through infected food and water is not wholly an interstate matter. Disease frequently is of local source and local spread. The Food and Drugs Act is not an effective weapon against the spread within the state borders of disease-producing organisms in food. The Federal authorities cannot interfere with domestic commerce, but the state health officers are under no such limitations. Moreover, the Federal authorities have no right of entry and inspection into food factories within the state lines. A factory can be run under the most unsanitary conditions; milking may be done by a man recovering from scarlet fever, or milk may be produced on a farm where a member of the family is suffering from typhoid, and the Federal authorities have no power to act. Even if these products are shipped across the state line and samples are taken, there is no method for analyzing a product which can supply evidence that the food is produced in unsanitary ways or within contaminating reach of epidemic or endemic diseases. The state authorities, however, can enter these factories, need not wait for shipment across state lines, and therefore, provided only that their laws are efficient and the funds at their disposal adequate, can prevent the sale of these deadly unlabeled foods.

FOOD AND DRUGS ACT LARGELY AN ECONOMIC MEASURE.

The Food and Drugs Act, as administered in the past has been very largely an economic measure. It has, to be sure, prevented very largely the mixing of active poisons in hurtful quantities with food products, but its particular work has been to see that food products are properly branded, so that the consumer knows what he is getting

*Abstract of address delivered before the 41st annual meeting of the American Public Health Association at Colorado Springs, Colo., Sept. 9, 1913.

and is not cheated into paying a high price for a product adulterated with a cheapener. This must of course always be one of the purposes of the act; but we must not be deceived into believing that this very important economic function of the Act is of great hygienic significance. Misbranding does not, demonstrably affect the death rate of the country. If the efforts devoted to prevention of misbranding were to be concentrated more largely upon the suppression of the traffic in contaminated milk, meat, vegetables and other products that may carry disease, a positive reduction of the country's death rate would inevitably result. At best, however, the Federal authorities under the Food and Drugs Act can deal only with such of these bacteria carrying products as chance to enter interstate commerce.

FOOD AND DRUGS ACT USEFUL MAINLY TO BIG CITIES.

The Federal control of interstate commerce has in the past, and will have to be in the future, of more benefit to the large cities than to the small towns and rural communities, because the large cities even though in the center of the state draw their supplies to a far greater degree through interstate commerce than do the small towns and rural communities. The help that the Federal inspectors can extend to the rural communities, therefore, is absolutely limited to those settlements which happen to be near the borders of the state and so receive some of their easily contaminated foods through interstate commerce. The rural communities in the hearts of the states seldom obtain these unlabeled and possibly dangerous foods through interstate shipment. They get their food of this kind almost wholly in domestic commerce. Their milk comes from nearby farms. Their meats, if not slaughtered locally, come from nearby cities. Their fish and shell-fish may be shipped to them from sea-food centers in the nearest large towns within their state borders.

70,000,000 PEOPLE WITHOUT COMPLETE FOOD PROTECTION.

It is unfortunate that the large cities derive such preponderating advantages from the Federal control of interstate commerce. I say unfortunately advisedly, because the large cities need Federal protection far less than the small town or rural community. The reason is that systematic health protection work in the United States is largely confined to the big cities.

In many states the large cities are the only points which have any real sanitary protection. Our rural population of 49,000,000 people, including the 30,000,000 who live on farms, with the exception of those fortunate rural dwellers in one or two exceptional states which regard the health of the country people as also important, receive very little state health protection and maintain no local protective system

of their own against contaminated local milk, meat, shell-fish, fish or vegetables. Moreover, only a small number of these rural inhabitants are safeguarded, by competent inspection, against polluted water supply or sewage disposal methods dangerous to health and life.

To this rural and unprotected population we can add the bulk of the 14,000,000 people who live in towns, cities and suburbs of less than 25,000 inhabitants, excepting those here and there who happen to dwell in the more progressive towns, or in those few hamlets located in the exceptional states that have already awakened to the importance of rural sanitation. If we wished we could go even further and add the populations of many cities of 25,000 or 50,000 people which maintain no health officers; and of those cities which have health officers but so cripple them with poor laws or ordinances, or with insufficient funds, as to make their food inspection work most ineffective. I mean cities, for example, where boards of health are practically powerless under the law to seize milk except when it is actually watered or skimmed. These health officers must look on helplessly while milkmen send milk so dirty, or from such dangerous, disease-breeding places, as to make it a menace to the consumer. To prevent this deplorable condition it is absolutely necessary that uniform standards of bacteriological cleanliness as well as chemical composition be established. Bacteriological control is absolutely necessary to prevent the spread of contagion.

The probability, therefore, is that there are upward of 70,000,000 out of our 91,000,000 people who have no efficient and systematic protection from the major causes of the spread of typhoid, tuberculosis, deadly intestinal diseases of infants, scarlet fever, septic sore throat, trichinosis, and other ailments resulting from the circulation of disease producing organisms.

LICENSE OF PHYSICIANS SHOULD BE CANCELED FOR FAILURE TO REPORT CONTAGIOUS DISEASES.

We must not let ourselves be blinded by statistics, for the statistics of disease in the United States are notoriously unreliable. For certain sections no attempt whatever is made to collect them. I need not tell an audience such as this that reliable statistics are the basis of all health protection. Until severe penalties are inflicted for failure to report cases of infectious diseases, until failure to do so results in the cancellation of the license to practice medicine there will be no really reliable statistics. And this will only be brought about when the state health services throughout the land furnish a permanent career for life instead of being, as they are but too often at present a side line of politics—medical or otherwise. And these services should fur-

nish a career like the Federal Civil Service, to sanitary engineers and chemists as well as to physicians. The people must learn that their health is too valuable to entrust to temporary health officers or to physicians who devote to the discharge of their duties as health officers, only such irregular moments as can be spared from their private practices.

RURAL DEATH CERTIFICATES INACCURATE.

The sections of the country in which as already stated little or no attention is paid to keeping records of disease are rural. The large cities keep some sort of record because attention to health protection and to easily contaminated foods is centralized almost wholly in the cities. With rare exceptions the effectiveness of the protective work depends on the individual city, rather than on a state-wide law or a state wide and efficient health inspection system. Therefore, the collective figures of urban deaths, look more significant but if we could make an accurate total of the deaths on farms from the same causes, the figures would be appalling. In the country a man dies of "fever" or a "cough." The cities would announce that he died of "typhoid" or "tuberculosis." In the country babies fed on bad milk just die. In the city they die of accurately defined intestinal disorders and when the infantile death rate mounts, rigid milk inspection follows. In the cities, typhoid is often traced to its source and protective measures invoked. In the country the dangerous well or infected food supply usually continues to work havoc.

FOOD PROTECTION IN GREAT CITIES MAKES RURAL CONDITIONS WORSE.

One might suppose that where a city adopts and enforces a good health protection system, the educative effect of this must necessarily extend to the adjacent rural and suburban population. The truth is that an effective city health protective plan, where the surrounding rural districts have no adequate state or local protection, makes food conditions worse instead of better in the surrounding country districts. For example, Pittsburgh, Pa., and Cleveland, Ohio, have effective milk inspection. The health officer of one city notifies the health officer of the other city when milk entry has been refused to a certain dairy. This prevents that dairy from offering its refused milk to the other city. The results naturally would be that the producers of bad milk refused sale in these two larger cities could readily dispose of their product in the smaller places like McKees Rocks, Sewickley, Beaver Falls, and Coraopolis, which might have no effective milk inspection systems. The same thing is happening in many New Jersey towns. Milk refused entry into New York City by the Board of Health is

sent to towns like Perth Amboy, which may have health officers, but which do not provide them with funds enough for efficient milk inspection work and to carry on expensive prosecutions.

DEPARTMENT CAN HELP RURAL COMMUNITIES NEAR STATE LINES.

The Department of Agriculture feels that it should give more attention to the protection of these rural communities. This means that the work hitherto largely confined to detection of the presence of preservatives in labeled foods which do not carry organic diseases, and the prosecutions for misbranding which might work a monetary fraud on the consumer, should be widely and rapidly extended to the control of interstate commerce in the dangerous unlabeled foods which can transmit and which do transmit serious diseases.

Plans for extending this work to interstate shipments of milk all over the country have already been made. It is the plan of the department to do more than exercise merely police control over interstate shipments. Plans have been made at the same time to show the milk producer how to produce better milk; and also to show him that it will pay him to produce his milk under the best conditions. The educational and the regulatory work will go on together—an ancient combination much used by the old fashioned school teacher who taught by precept when he could and resorted to the switch when he had to.

The only help that the department's work in the rural communities around the state's edges can be to the country districts in the heart of the state is to educate, through example and by means of publicity, the rural population throughout all the states to demand of the state that it extend to them the same protection now enjoyed by the large cities against preventable disease disseminated through their food. It is along these lines that the state officials can cooperate with the Federal government. They can help to arouse the public to demand effective state-wide measures in all the states, and to insist on an efficient, permanent staff of health officials, and rigorous supervision of the preparation of all foods liable to contamination and pollution. The department of Agriculture will do its duty not merely in exercising control over interstate commerce, but also in helping food producers bring their food up to proper quality, and it will thus add materially to the available supply of honest and safe food in the country. The great purpose of the Department of Agriculture is a constructive one, namely, not merely to punish adulterators of food, but to help honest manufacturers to discharge their duty to the community by supplying wholesome products. The actual detection and closing of dirty or unsanitary factories and dairies, or the compelling of their owners to mend their methods, must, however, rest with the states.

THE CHICAGO MEDICAL RECORDER

AND
JOURNAL OF THE MEDICO-LEGAL SOCIETY

EDITORIAL BOARD

DR. E. W. ANDREWS	DR. FRANKLIN H. MARTIN.
DR. FRANK T. ANDREWS.	DR. JOSEPH MATTESON.
DR. CHARLES C. BEERY.	DR. FREDERICK MENGE.
DR. R. W. BISHOP.	DR. THOS. J. WATKINS.
DR. JAMES BURRY.	DR. SAMUEL C. PLUMMER.
DR. HENRY T. BYFORD.	DR. ARTHUR R. REYNOLDS.
DR. FRANK CARY.	DR. HOMER M. THOMAS
DR. E. J. DOERING.	DR. H. H. FROTHINGHAM.
DR. JUNIUS C. HOAG.	DR. OTTO L. SCHMIDT.
DR. FRANK S. JOHNSON.	DR. D. A. K. STEELE.

DR. A. CHURCH.

COMMITTEE ON PUBLICATION

E. J. DOERING HENRY T. BYFORD
A. R. REYNOLDS

Vol. XXXV. No. 9.	PUBLISHED MONTHLY. Pullman Building	SINGLE COPIES 20 CTS.
NEW SERIES.	Chicago, Ill., September 15, 1913.	\$1 A YEAR IN ADVANCE.

Editorial.

SCHOOL HYGIENE.

Between 300,000 and 400,000 children have entered the Chicago city schools this month and for some time to come will spend the greater part of their waking hours in the school room. These children are all in the formative stage of mind and body, that period when an ounce of prevention is truly worth more than a pound of cure later on. Preventive medicine in its broader sense has unlimited opportunities among children, and thinking people no longer expect the maximum development of a child to be accomplished in unhygienic surroundings and under adverse conditions of physical defects.

The responsibility of the matter has been accepted by the teaching world and the medical profession. Last month a great assemblage of teachers, investigators, physicians, dentists, sanitarians and other public-spirited citizens from every quarter of the globe attended the Fourth International Congress of School Hygiene in Buffalo. All that

pertains to the health and efficiency of school children was discussed at this meeting—the correction of defects of sight and hearing, the importance of sound teeth and the value of the toothbrush in preventing disease, the fresh-air schools, the subject of recreation, ventilation in the school rooms, the effects of food, the school nurse's place in this health campaign and the benefits of medical inspection.

In reference to medical inspection in the schools, there seems to be no question of its value. Such inspection has come to stay and there is no doubt of its ultimate adoption in all public schools, but this important work is likely to be delayed in some localities by local prejudice, by considerations of expense, etc., and it is the direct and positive duty of the medical profession to explain to the public the crying need for this inspection and its great value to the school children. Physicians are the legitimate teachers of health and hygiene, and the people look to them for instruction.

THE RIGHT STAND.

The reply of Norman Hapgood of Harper's Weekly to numerous letters he received upon taking over editorial control of that great journal, asking him to be fair and publish both sides of the vivisection controversy, should be copied in large type upon a prominent page by every publication, including the daily press, that has regard for the safety, the welfare, the happiness of mankind. The reply was not long, only a few sentences. It was not accompanied by excuses or apologies, and there was absolutely no possibility of mistaking its meaning.

“Certainly not. We have no intention of giving both sides. We shall no more give both sides of the argument on vivisection than we shall give both sides of the question of whether the household fly shall be encouraged in the dining-room, or sewers emptied into the city reservoir, or swamps kept for the breeding of mosquitoes, or smallpox patients be permitted to ride on the street cars.”

Such words as these, indicating as they unmistakably do that the cause of scientific medicine has gained a new and powerful ally, will bring cheer to men all over the country who are engaged in the work of probing into the still unknown in the causation of disease, men who are so often hampered in their work by ignorance, sentimentalism, or fanaticism taking concrete form in local societies or unjust legislation. We have no data upon which to base an exact statement, but we believe that these people are not as powerful as they were when, but a

few years ago, they drove many of the leading scientific men of England across the Channel into France to complete their work unmolested, or else compelled them to abandon it altogether. They are still active enough, however, to form a positive menace to original investigation and laboratory experiment and teaching, unless held in check by a powerful public opinion. Workers in scientific medicine hail with gratitude each new champion who comes to their aid.

REGULATING TRAFFIC.

While not strictly a medical topic, yet the question of suitable regulation of traffic has so large a public significance that a few words may not be amiss. When Henry A. Blair, one of the traction financiers of this city, returned from Europe some weeks ago he gave his opinion regarding the congestion of traffic in our streets, the frequency of accidents, and the poor transportation about which Chicago people justly complain. He attributed much of the trouble to a general lack of order and control, to the use of the car tracks by wagons, to disobedience of traffic signals, and to a general "do nothing" policy. He referred to the tremendous amount of traffic in the streets of London, where it is so efficiently handled by the crossing policemen. He said: "The manner in which they handle it is marvelous. The slower vehicles are kept near the curb and the faster near the center of the street, and each class has to keep in its own place or there is trouble. If you get in the way of a vehicle there, and you are where you have no business to be, you are arrested. There is no crossing in the middle of the street or dodging among moving traffic after the crossing policeman has given the signal to stay back."

Somewhat similar criticisms have recently been made by Coroner Hoffman of this city, who attributes a large number of the accidents to pedestrians to their attempt to cross the street in the middle of the block or to some other violation of traffic rules. A committee has been formed to consider the subject in all its bearings and to suggest possible methods for lessening the appalling loss of life from street accidents. It would seem likely that a carefully devised code of traffic regulations and strict enforcement both for vehicles and pedestrians would help the situation. A campaign of education for the public might also be in order, with a careful explanation of the traffic rules and instruction as to what precautions should be observed in crossing the streets. Not a little emphasis should be laid on the foolishness of this mad rush that marks so much of a city's activity.

WOMAN'S CLOTHES.

Judge Latshaw, of Kansas City, Mo., is reported to have said that in his opinion there is nothing inherently immoral in the slit skirt, diaphanous gowns, or any of the other vagaries of present fashions in woman's clothing. In these days when so much attention is being directed to this phase of private morals it is refreshing to find somebody with courage to express an independent, sane opinion. Women themselves say that never before have they been so comfortable as in the present style of clothes, and this alone would seem a good reason for allowing them to continue along these lines.

Several points suggest themselves for consideration. First of all, there is the element of novelty. All innovations have to overcome the tremendous inertia of popular tradition and public habit. One has only to recall the storm of protest and ridicule that met the woman who adopted the divided skirt for bicycle riding some few years ago to realize that time and familiarity change many things. Today this sensible costume has become the standard riding habit and no longer excites the least comment. Moreover, the relation between modesty and clothes seems to be a variable one, and it is likely that clothing was adopted primarily for warmth and ornament rather than from motives of modesty. Observant travelers say that modesty among many of the savage tribes goes hand in hand with nakedness. The Mohammedan woman displays freely her ankle and leg but carefully veils her face. The Chinese woman wears trousers as a matter of course and would consider petticoats immodest. The era of hoopskirts and crinoline would not exactly indicate that a woman's modesty is to be measured by the number of yards in her petticoat. One does see astonishing sights on Michigan boulevard in Chicago, for instance, much that is startling, more that is ridiculous. But it is an open question whether the indecency lies in the clothing worn or in the wearer. Might not the effect be the same whatever the costume! Too much attention is being directed to the matter, and decent women generally have a right to resent this bandying back and forth of the question as to whether the clothing they choose to wear is immodest or not.

Physicians have made every effort to convince women that their clothing was unhygienic and a menace to health. They have protested without much success against the weight of the clothes, against the high, tight collars, the tight sleeves, the compressed waist line, the dirty sweeping trains worn on the streets. If these much needed changes can be brought about in the name of Fashion, why cavill at the means by which the reforms are accomplished or the guise in which they come!

Medico-Legal.

DYING DECLARATIONS.

There has been much discussion both in England and in this country of the recent decision of the English Court of Criminal Appeal in *Rex v. Thompson*, as to the dimissibility of evidence as to statements by the deceased, not made *in articulo mortis*. The defendant, a physician, was charged with causing the death of a woman through a criminal operation performed on her at her request. The defense was that the woman had applied to the defendant to perform the operation, which he declined to do, and that she herself had then performed the operation. The only evidence that she had done so was a statement made by her to another woman, some time before her death, when she was not in expectation of dying. Both the trial court and the appellate court held this evidence inadmissible. In so holding the Lord Chief Justice said that the admission of such statements would more frequently hurt the prisoner than help him, since the court had to apply the same rules of admissibility to evidence tendered by the defense as to evidence tendered by the prosecution. Whatever may be thought of the soundness of the decision, the reason given for it is clearly unsound. That is, of course, the general rule, but there is at least one exception and that is in the case of declarations made by a party, which are always admissible in evidence at the instance of the adversary party but never at his own instance. The reason for this distinction is plain. A declaration against interest is the best kind of evidence, while a declaration in one's own interest is no evidence whatever of the truth of the statement.

The reason for admitting evidence of admissions by a party would seem to apply by a close analogy to evidence of a deceased persons' statements as to the cause of his or her death, even though such statements be made at a time when the person expects to recover from the injury. Such evidence would be admissible at the instance of the defendant if the person injured did recover and endeavored to charge the injury upon some other person than the one charged with it in previous statements made at the time of or subsequent to the injury. It would be admissible as tending to impeach his testimony to the contrary, and no doubt could be entertained that such evidence would be most persuasive. Does it lose its force merely because the injured person dies instead of recovering? Assuredly not.

If evidence has probative value, the only good reason for rejecting it is that it is of a kind that could be easily invented, and

that the temptation to invent it would be too strong to be resisted. This is one of the reasons for rejecting self-serving declarations and was the reason, under the barbarous rule of the common law, so recently abolished in this country and in England, which rejected the testimony of any person having an interest in the suit. It is well, by the way, to bear in mind the long persistence of the latter relic of barbarism in our procedure, when a change in our archaic rules of evidence is proposed.

Judged by this standard, is there any good reason for excluding evidence of ante-mortem statements by an injured person who, at the time of making them, is not in expectation of death, as to the person who caused the injury? If such statements were admitted on behalf of the State, the question would most properly be answered in the negative. It is to be borne in mind that the purpose of admitting ante-mortem statements, under the accepted rule, is to favor the State, by establishing an exception to the hearsay rule which, under ordinary circumstances, would be availed of by it alone, since no one would be indicted in opposition to the dying statement of the person injured, that his injuries were inflicted by another person. In the particular case, if the deceased had made her statement in expectation of death, either the defendant would not have been indicted, or, if indicted prior to her death, he would have been released as soon as the making of the ante-mortem statement was established to the satisfaction of the Crown. It is, no doubt, because such declarations were in practice available only to the prosecution, and because their admission deprived the defendant of the protection of the oath and the opportunity of cross-examining the witness (the real witness, the deceased), that the statement was required to be made under the expectation of certain and immediate death. It is easy to imagine circumstances under which an injured person might, while expecting to recover, carelessly or designedly, attribute his injuries to some one who did not inflict them, either under an honest misapprehension, or for the purpose of diverting suspicion from the real actor. In a case like the one under consideration the woman might charge one physician with having performed the operation, for the purpose of protecting the one really guilty. In another case, where the injuries might be caused by an assault under cover of darkness, the injured person might really believe that the assault was committed by some one other than the one really guilty, and so charge, without anything beyond a known enmity and other inconclusive circumstances to sustain the suspicion, doing so thoughtlessly and on the spur of the mo-

ment, without any idea of his hasty accusation becoming the basis of a prosecution for murder.

Without going further, it is evident that great injustice might be done by permitting evidence of statements charging the defendant with the crime to go to the jury, unless made in the solemnity or impending death. But not so with statements exculpating him. If true, there could, ordinarily, be no better evidence of his innocence. It is true that such evidence could be easily invented; but that is true also of all evidence of admissions by persons dead or alive, including death-bed statements.

We are inclined to agree with the *Law Journal* (London) that it is "inconsistent with the interests of justice to exclude on a technical ground evidence which obviously might go a long way to establish the prisoner's innocence."

A DENTIST IS NOT A SURGEON.

In the common acceptance of the word, a dentist is not a surgeon, says the Supreme Court of New York in *Howe v. Regensburg*, 132 New York Supplement, 837. In this case a dentist was suing for services rendered, and the question arose as to whether the communications between the dentist and his patron were privileged, preventing him from giving certain testimony, under section 834 of the Code of Civil Procedure of New York providing that "a person duly authorized to practice physic or surgery, or a professional or registered nurse, shall not be allowed to disclose any information which he acquired in attending a patient, in a professional capacity, and which was necessary to enable him to act in that capacity." The court said: "Strictly speaking, a dentist might be included within the description relating to those who practice surgery, but, as the term 'surgery' is employed in the statute, it does not include one engaged in the practice of dentistry. * * * In early days in England the province of the dentist was not recognized, except as it fell within the scope of the functions of the 'barber surgeon,' whose multitudinous duties often included those not only of the barber and surgeon, but the physician and dentist as well. Within quite recent times it was customary for barbers and blacksmiths to extract teeth. Formerly the work of filling and plating teeth was frequently performed by the jeweler. But a process of integration and differentiation has taken place, and the separate and distinct profession of dentistry has come into existence."

Book Reviews

THE MODERN TREATMENT OF NERVOUS AND MENTAL DISEASES. By eminent American and British authors. Edited by William A. White, M. D., Superintendent of the Government Hospital for the Insane, Washington, D. C.; Professor of Nervous and Mental Diseases in the Georgetown University and in the George Washington University; Lecturer on Mental Diseases in the U. S. Army and U. S. Navy Medical School, Washington D. C., and Smith Ely Jelliffe, A. M., M. D., Ph. D., Adjunct Professor of Diseases of the Mind and Nervous System in the Post Graduate Medical School and Hospital; Visiting Neurologist to the City Hospital; Consulting Neurologist to the Manhattan State Hospital, New York, N. Y. Two octavo volumes, containing about 900 pages each, illustrated. Per volume, cloth, \$6.00 net. Lea & Febiger, Publishers, Philadelphia and New York 1913.

The promise of the first volume has been more than made good in the second which by the general practitioner will be considered the more valuable one of the two. Subjects that are embraced under the general term of nervous diseases are taken up seriatim by competent writers, a short sketch given of each, almost in text-book style, embracing a description or definition, the etiology, pathogenesis, pathology, symptomatology and differential diagnosis, and then the treatment is elaborated at considerable length. This method appears to us to be the logical one rather than the cook-book style of simply putting down a list of the diseases and a little treatment appropriate to each. Yet the work is not intended to take the place of a systematic treatise on nervous diseases. Nothing particularly new and brilliant appears in the book. Indeed it is too well balanced and conservative for that, and it may be safely stated that nothing of value and importance of ancient or recent date is omitted.

The volume ends with an admirable chapter on surgery of the brain and spinal cord, a practical way of giving a broad view of this new field of neurological and surgical work, showing its limitations and the overlapping of the co-ordinate activities.

The contributors to this volume are Isadore Abrahamson, C. D. Camp, Louis Casmajor, Albert E. Halstead, Gordon Holmes, Herman Hoppe, Smith Ely Jelliffe, William J. Maloney, J. F. Munson, Henry J. Nichols, Colin K. Russel, Sidney I. Schwab, E. W. Scripture, James A. Sherren, Frederick Tilney, Roger T. Vaughan, and E. A. Kinnier Wilson.

A. CHURCH.

GONORRHEA IN WOMEN. Its Pathology. Symptomatology, Diagnosis, and Treatment: Together with a review of the rare varieties of the disease which occur in men, women and children. By Charles C. Norris, M. D., Instructor in Gynecology, at the University of Pennsylvania. Octavo of 521 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$6.00 net; half morocco, \$7.50 net.

No other book is edited which treats the subject in such a thorough and satisfactory manner. The historic, bacteriologic, and sociologic phases, as well as the pathologic changes and the approved methods of examination are thoroughly considered. The conservative medical treatment is carefully discussed. All this in the young and old, as well as during pregnancy, labor and parturition. The chapters referring to the skin, urinary, nervous and other organs, also the drugs used in gonorrheal treatment, including the vaccine and serum therapy, are reviewed.

One must at once recognize this volume for its actual worth and it can heartily be recommended to all. As a reference book it should be in the reach of everyone interested in this topic, and as a text-book it can be highly recommended.

LOUIS E. SCHMIDT.

MALARIA. Etiology, Pathology, Diagnosis, Prophylaxis, and Treatment. By Graham E. Henson, M. D., Member American Medical Association, Florida Medical Association, Southern Medical Association, American Society of Tropical Medicine, Medical Reserve Corps. With an Introduction by Charles C. Bass, M. D., Professor of Experimental Medicine, Medical Department Tulane University, New Orleans. Twenty-seven Illustrations. St. Louis: C. V. Mosby Company, 1913. Price, \$2.50.

In the preface the author says he "believes that one of the most sacred duties the general practitioner in malarial regions owes to the community in which he lives, is his assistance in the eradication of malaria."

In the preparation of this work this belief seems to have been kept constantly in view, and as the author considers that early diagnosis is the most important prophylactic unit, diagnosis and treatment have also been given special attention. That the book has been written by a man with great practical experience in dealing with the disease is evidenced all through the work, and in addition the theoretical, experimental, and laboratory aspect of the subject is most thoroughly expounded. Laboratory technic and practical phases of sanitation are carefully explained in detail, and there is one of the best chapters on

treatment we know of. In an introduction to the book Dr. Charles C. Bass, of New Orleans, states that it was written for the general practitioner and we can most earnestly recommend it to physicians anywhere, but particularly, of course, to those practitioners whose work lies in a malarious country.

THE BATTLE CREEK SANITARIUM. History, Organization, Methods. By J. H. Kellogg, M. D., Battle Creek, Mich., 1913.

No one can read this book without being impressed with the painstaking methods used at this sanitarium to arrive at a correct diagnosis and proper treatment. Every scientific and modern method is made use of and we suggest that some of the older physicians read this book carefully to realize what accuracy in diagnosis means. As the writer has had several chronic cases in this excellent institution he can testify that the methods recommended in this book are actually and conscientiously carried out. We may not all agree as to treatment, diet, etc., but we do know that in this institution every patient is subjected to the best and most scientific tests for diagnosis, that an intelligent supervision is kept over the case, and that the home physician is kept advised of the progress made. E. J. DOERING.

VICIOUS CIRCLES IN DISEASE. By Jamieson B. Hurry, M. A., M. D. (Cantab.). Ex-president Reading Pathological Society. With Illustrations. Second and Enlarged Edition. Philadelphia: P. Blakiston's Son & Co., 1913. Price, \$3.00 net.

This author has surely broken new ground in his work upon vicious circles, and very evidently the new ground is proving well worth cultivation for the second edition is called for within a short time. The subject is one that could be dealt with properly only by a man of wide experience, a close, accurate observer, a profound reasoner and a man of extensive reading. All physicians of practical experience have many times encountered this peculiar antagonism or rather sequence of morbid processes, but until Dr. Hurry collected the different units and placed them in their logical connection there was no place to which the practitioner could turn for aid in understanding or correlating them.

The subject is taken up by sections, as circles associated with the nervous system, the cardio-vascular system, the respiratory system, the digestive system, the urinary system, the sexual system, circles associated with the eyes and eye-lids, with the nose, the throat, the ears, and the skin. The monograph then proceeds with the genesis of

the circle, the breaking of the circle by nature and by art, and presents in a final chapter the author's conclusions as to the several propositions he has sought to establish.

THE SURGICAL CLINICS OF JOHN B. MURPHY, M. D., at Mercy Hospital, Chicago. Volume II, No. III (June, 1913). Octavo of 185 pages, 62 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Published Bi-Monthly. Price, per year; Paper, \$8.00; Cloth, \$12.00.

Those who are familiar with these clinics look forward with interest to each succeeding number. This issue contains the following subjects: Obturation Ileus, Intestinal Stasis Caused by Band of Adhesions, Paratracheal Tumor, Desmoid Tumor of the Rectus Muscle, Plastic Operation on Ear, Tenoplasty of Flexor Tendons of Fingers, Ankylosis of the Jaw, Subcoracoid Dislocation of the Humerus, Fracture of Neck of Femur, Fracture and Dislocation of Scapoid, Infectious Granuloma of the Caput Coli, Arthroplasty of the Hip, Pott's Disease, Procidentia Uteri (Dr. Murphy's Method of Fixing the Uterus), Cholecystitis, and Acute Suppurative Prostatitis.

THE SURGICAL CLINICS OF JOHN B. MURPHY, M. D., at Mercy Hospital, Chicago. Volume II. Number IV. (August, 1913.) Octavo of 206 pages, 49 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Published bi-monthly. Price per year: Paper, \$8.00. Cloth, \$12.00.

This number is the largest and one of the most important so far issued. It contains an article of nearly 40 pages on Vaccine and Serum Therapy based on the clinical work at Murphy's Clinic and giving a full discussion of the subject by practitioners and pathologists. The great value of the article is the results obtained in the treatment of various affections and Dr. Murphy's deductions therefrom.

PRICES CURRENT. 1913-1914. Pharmaceutical and Biologic Products of the Abbott Laboratories.

BIOLOGIC PRODUCTS AND HOW TO USE THEM. Antitoxins, Serums, Stock Bacterins and Autogenous Bacterins, and Smallpox Vaccine.

These booklets, issued for the trade by the Abbott Alkaloidal Company, deserve some mention by journals which reach the general practitioner. The first, the regular "Prices Current," contains a therapeutic department giving detailed information as to the application

of many of the articles listed and will repay reading. The second, "Biologic Products," contains the latest word upon the preparation and dosage of the antitoxins, serums, stock bacterins and autogenous bacterins. The biologic phase comprises such a large part of medicine that every physician will be compelled to use it and thoroughly to understand its rationale. This pamphlet will aid materially to this end.

Both books may be had upon application to the Abbott Laboratories.

A COMPEND ON BACTERIOLOGY. Including Animal Parasites. By Robert L. Pitfield, M. D., pathologist to the Germantown Hospital; late demonstrator of bacteriology at the Medico-Chirurgical College, Philadelphia; visiting physician to St. Timothy's Hospital and Chestnut Hill Hospital, Philadelphia. Second edition. With 4 plates and 85 other illustrations. Philadelphia: P. Blakiston's Son & Co. 1913. Price, \$1.00 net.

We know of no more valuable quiz-book upon the subject than this. The second edition is brought down to date and a chapter giving the outlines of the subject of immunity will prove valuable. To the student going up for examination or the practitioner wishing to review, the book will prove a real help.

LANG'S GERMAN-ENGLISH DICTIONARY. Terms Used in Medicine and the Allied Sciences. Second edition. Edited and revised by Milton K. Meyers, M. D., neurologist to the Jewish Hospital Dispensary and to St. Agnes Hospital Dispensary, Philadelphia. P. Blakiston's Son & Co., 1012 Walnut street, Philadelphia. 1913. Price, \$5.00 net.

Even a good German scholar may find it difficult to translate medical German with accuracy, a difficulty which is not met by the ordinary dictionary with its limited vocabulary. At the same time German medical literature is of such inestimable value and so indispensable in certain lines of work, that the only solution of the difficulty lies in a good specialized dictionary covering the terms used in medicine and the allied sciences. This we have in the volume before us.

This second edition has been carefully revised, much new matter has been added, the really obsolete terms omitted, and the book will undoubtedly be of greater usefulness than ever to the profession. It is of handy size, well printed, and bound for service.

ANATOMY, DESCRIPTIVE AND APPLIED. By Henry Gray, F. R. S., Fellow of the Royal College of Surgeons; lecturer on anatomy at St. George's Hospital Medical School, London. New (American) edition, thoroughly revised and re-edited, with the ordinary terminology followed by the Basle Anatomical Nomenclature, by Edward Anthony Spitzka, M. D., director of the Daniel Baugh Institute of Anatomy and professor of general anatomy in the Jefferson Medical College of Philadelphia. Imperial octavo, 1,502 pages, with 1,225 large and elaborate engravings. Cloth, \$6.00, net; leather, \$7.00, net. Lea & Febiger, publishers, Philadelphia and New York. 1913.

It is hardly necessary to make any extended comment in a review of Gray's Anatomy. This has for so many years been the standard text in most schools of medicine that it is undoubtedly one of the best known works in all medical literature. The revision for this edition has been thorough and is particularly important because it adopts the Basle Anatomical Nomenclature, giving these terms in parentheses following the ordinary terminology. As in former editions the names of the parts are engraved directly on the illustrations, thus enabling the student at a glance to visualize the name of the part, its position, extent and relations. Colors are abundantly used, and dissecting directions accompany the descriptions of the part. The value of the book is increased by a good index comprising both terminologies. The whole book is thoroughly organized in its headings and the sequence of subjects, and as a teaching instrument is complete in every respect.

MASSAGE—ITS PRINCIPLES AND TECHNIC. By Max Bohm, M. D., of Berlin, Germany, Edited with an Introduction, by Charles F. Painter, M. D., Professor of Orthopedic Surgery at Tufts' Medical School, Boston. Octavo of 91 pages, with 97 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$1.75 net.

The object of this book is to get physicians both interested and instructed how to massage in all special cases, leaving general massage to the masseurs. The author quotes Hoffa "Massage by the Doctors," and no doubt many of our younger physicians could greatly increase their revenues as well as usefulness by learning how to massage in pathologic changes in muscles, tendons, joints, nerves, and internal organs, instead of intrusting such cases to indifferent masseurs. The book is well illustrated and every detail is shown, covering the general technic, massage of the joints, muscles and various organs.

This book is also of value to the trained nurse and medical stu-

dent. We trust it will increase the uses of scientific massage in this country.

A REFERENCE HAND-BOOK OF GYNECOLOGY FOR NURSES. By Catharine Macfarlane, M. D. Gynecologist to the Woman's Hospital of Philadelphia. Second Edition, Thoroughly Revised; 32mo. of 156 pages, with original line-drawings. Philadelphia and London: W. B. Saunders Company, 1913. Flexible leather, \$1.25 net.

This is an excellent handbook for nurses. It teaches quite enough and is especially serviceable as a reminder to the trained nurse what preparations to make for the various gynecological operations, as this book mentions all the needful instruments, supplies, sutures, etc., required. Also how to be prepared for the emergencies which may arise during major operations, after care, complications, technic of slow enteroclysis, etc. In short, it teaches everything necessary to make the trained nurse an invaluable adjunct to the surgeon. This edition has been thoroughly revised and brought up to date.

News Items

State Conference of Charities.—The eighteenth annual State Conference of Charities and Correction will be held in Rockford, October 11-14. A. L. Bowen, Springfield, is a secretary of the conference.

Mississippi Valley Medical Association Meeting.—The thirty-ninth annual meeting of the Mississippi Valley Medical Association will be held in New Orleans, October 23-25, under the presidency of Dr. Albert E. Sterne, Indianapolis.

For Rent.—May 1, 1914.—Large room in private suite in first-class office building. Suitable for dentist or general practitioner. Private laboratory, rest room and private exit. 1504 Kesner building, Wabash avenue and Madison street.

Good Medical Publications.—Messrs. Rebman, publishers, take pleasure in informing the profession that the International Medical Congress, held during the first week in August, 1913, has awarded to them the gold medal for the best medical publications.

Electrotherapeutists to Meet.—The twenty-third annual meeting of the American Electrotherapeutic Association will be held at the Engineering Society's Building, 29 West Thirty-Ninth Street, New York City, September 2-4, under the presidency of Dr. F. Howard Humphris, London, England.

Tuberculosis Sunday.—The National Association for the Study and Prevention of Tuberculosis, announces that Sunday, December 7, has been designated as the fourth annual tuberculosis day at which special efforts will be made through churches and otherwise to interest the people in this most important subject.

Necropsy Arranged by Will.—Dr. Pinard, professor of clinical obstetrics in the University of Paris, and M. Barrier, inspector general of the veterinary schools, both of whom are members of the Société pour la propagation de l'incinération, have left instructions in their wills that their bodies shall be delivered to the Faculté de médecine for necropsy before being burned.

New Convalescent Home.—It is reported that Mr. Vincent Astor has purchased a site of ten acres at Rhinesbeck, N. Y., on which he will erect, in memory of his father, a home to be known as the John Jacob Astor Home for Convalescent Children. Plans for the buildings have not yet been completed, but it is probable that accommodations will be provided for one hundred children.

New Chicago Manager.—Mr. C. Ramm has resigned his office as western passenger manager of the Hamburg-American Line, a position which he has filled during a long number of years. He will be succeeded by Mr. A. C. E. Schmidt, who has been associated with the passenger department of the Chicago office for some time. Mr. Schmidt assumes charge of the company's general western passenger office at 150 West Randolph street, Chicago.

Examination by State Board of Health.—A special examination will be held by the State Board of Health of Illinois for all physicians eligible under the law of July 1, 1899, in the Coliseum Annex, Wabash avenue and Sixteenth street, Chicago, beginning September 24, at 9:30 a. m. No one will be admitted to the examination unless he presents a card of admission which will be issued to any applicant whose application is received on or before September 16. Application should be made to the Acting Secretary of the State Board of Health, Springfield.

An interesting London Bookshop.—Messrs. W. & G. Foyle present their compliments and beg to convey their thanks to their American cousins for the many laudatory notices referring to their big venture in the book world, which have appeared recently in the American press. This new book shop, at 121 Charing Cross Road, London, is one of the largest second-hand stores in the world. It is run almost entirely on American lines and the proprietors are always pleased to extend every courtesy to visiting Americans. They publish a number of catalogues covering all branches of literature, any of which will be forwarded on request.

New Work for Colonel Gorgas.—In dispatches from Johannesburg, South Africa, it is stated that Colonel William C. Gorgas has received an invitation from the Chamber of Mines, Johannesburg, to visit South Africa, study the sanitary conditions in the Witwatersrand mines and to make suggestions as to their improvement. The special object of the conference is the prevention of epidemic pneumonia of a very fatal type among the blacks such as occurred several years ago among the negro laborers at Panama and was successfully handled by improvement of the sanitary conditions. Colonel Gorgas has accepted the invitation subject to the approval of the United States Government, and has applied for leave of absence of four months to enable him to make the journey and complete the research required.

Helping Large Families in France.—A law has just been promulgated according to which every head of a French family, responsible for the expenses of more than three legitimate or recognized children, whose resources are insufficient to take care of them, is to receive an annual allowance for each child, after the third, who is less than 13 years of age. If the mother is responsible for the children on account of the death of the father or through his abandonment of the family, or for any other reason, the same assistance is to be rendered for each child after the first. If the mother is dead or has abandoned the family, the father is to receive assistance for each child after the second. Relatives who care for the children after the death or abandonment of father and mother are to be considered as heads of families.

American Federation for Sex Hygiene.—Following a symposium on the teaching of sex hygiene, which occupied the attention of the International Congress on School Hygiene one day during their recent meeting in Buffalo, a consolidation was effected of the above named society and the American Vigilance Association. The united organization elected officers as follows: President, Dr. Charles W. Eliot, president emeritus of Harvard University; Vice-Presidents, Dr. David Starr Jordan, Leland Stanford University; William T. Foster, Portland, Ore.; Felix Warburg, New York, and W. T. Sumner, Chicago. Secretary, Dr. Donald R. Hooker, Baltimore; Treasurer, Henry L. Higginson, Boston. Directors, Dr. Hugh Cabot, Boston; Robert W. Hebbard, Albany; Dr. D. R. Hooker, Baltimore; Dr. Ed. Y. Keyes, Jr., New York, and Wirt W. Hellam, Chicago.

Personal.—Dr. John William Shedd announces the removal of his offices to the Tower building, 6 North Michigan avenue.

Dr. J. L. Van Valkenburg has removed from 29 East Madison street, to Room 809, 31 North State street.

Dr. E. J. Doering is making an extended Western trip. He will not return to Chicago until about the middle of October.

Dr. and Mrs. E. C. Dudley have gone to the Huron Mountain Club, where their daughters preceded them several weeks ago. Dr. Dudley has been a devotee for many years of this beautiful spot, situated on the pine-clad shore of Lake Superior. He was, we believe, one of the earliest members of the Club hailing from Chicago.

Dr. Anna Dwyer has been appointed a member of the State Charitable Commission, vice Dr. John T. McNally, Carbondale, resigned.

James Mullenbach has been appointed superintendent of the Cook County Institutions, Oak Forest.

Say Operation Killed Fighter.—That John Young, the California prize fighter, who died recently after a knockout blow had been administered by Jess Willard, his opponent in a bout, succumbed to the effects of a surgical operation, and not to Willard's blow was the defense set up at the preliminary examination on Sept. 4th of Willard and eleven others connected with the fatal ring affair.

Counsel for the defense attacked the methods of the surgeons who were called to treat Young and their line of questioning indicated they

would attempt to prove that Young's death was caused by a brain wound from a knife in the hands of one of the surgeons who performed the trephining operation to relieve pressure on the fighter's brain.

School for Health Officers, Conducted by Harvard University and the Massachusetts Institute of Technology.—Beginning this fall Harvard University and the Massachusetts Institute of Technology are to maintain in co-operation a School for Public Health Officers. The facilities of both institutions are to be available to students in the School and the Certificate of Public Health (C. P. H.) is to be signed by both President Lowell and President Maclaurin.

The object of this School is to prepare young men for public health work, especially, to fit them to occupy administrative and executive positions such as health officers or members of boards of health, as well as secretaries, agents, and inspectors of health organizations.

It is recognized that the requirements for public health service are broad and complicated, and that the country needs leaders in every community, fitted to guide and instruct the people on all questions relating to the public health. To this end, the instruction of the new school will be on the broadest lines. It will be given by lectures, laboratory work, and other forms of instruction offered by both institutions, and also by special instructors from national, state, and local health agencies.

The requirements for admission are such that graduates of colleges, or technical and scientific schools, who have received adequate instruction in Physics, Chemistry, Biology, and French or German, may be admitted to the school. The medical degree is not in any way a prerequisite for admission, although the Administrative Board strongly urges men who intend to specialize in public health work to take the degree of M. D. before they become members of the School for Health Officers.

The Administrative Board which will conduct the new school is composed of Professor William T. Sedgwick, of the Massachusetts Institute of Technology; Professor Milton J. Rosenau, of Harvard; and Professor George C. Whipple, of Harvard. Professor Rosenau of Harvard has the title of Director, and the work of the school will be under his immediate supervision.

An Ideal Location for Doctors' Offices.—The completion on May 1, 1914, of the Michigan Boulevard building, at the southwest corner of Michigan avenue and Washington street, will meet a long-felt want of the doctors of Chicago in giving to them a modern and highly equipped building facing the lake front, with unobstructed exposure east and north, constructed and designed for their use.

The Michigan Boulevard building is ideally located for doctors' offices upon the corner of one of Chicago's most popular thoroughfares. Easy of access from all parts of the city, economical of subdivision, perfectly lighted and ventilated, being detached on four sides, and standing high above all adjoining buildings, with a sweeping and unobstructed view of Lake Michigan and Michigan avenue to the north, east and south,

the building combines all the advantages and qualities which the doctors desire, and which give to them perfect office conditions.

The building will have fifteen stories, basement and sub-basement. The front elevations are Gothic in design of polished granite and old ivory terra cotta. The interior of the building will be finished in white marble and enameled steel; the office interiors in Honduras mahogany.

The building, being detached on all sides, affords natural ventilation to the entire floor areas. The light court above the third floor, opening directly on Washington street, gives to all offices the benefit of outside light, air and sunshine. Every safeguard that modern skill can provide is being employed to make this building absolutely fire-proof.

The Michigan Boulevard building is heated by steam and equipped with the most modern ventilating system, compressed air, gas, and electric light, electric base and wall plugs, and hot and cold water. A complete vacuum cleaning system is installed.

Seven high speed electric passenger elevators and one freight elevator are provided for, offering at all times the best possible service. A barber and manicure shop, with every modern convenience will be installed.

Men's and women's toilet rooms, equipped with the most modern porcelain fixtures, are located on various floors throughout the building at points convenient to all suites of offices.

The lower floors and basement will be tenanted by high class shops and offices. The upper floors are designed by Jarvis Hunt, architect, after thorough study of doctors' requirements, and after careful investigation and counsel with the leading doctors of Chicago, upon plans that will give the most desirable service to physicians and affiliated professions. These floors are equipped with every convenience that will give to the doctors the highest degree of efficiency.

Suites are being arranged for doctors upon plans designed for their use and conforming with their requirements, giving to each doctor in the suite the convenience of electric light, power, compressed air, gas, and hot and cold water, as required by them.

It is the purpose of the owners to create in the Michigan Boulevard building a quality of space and equipment that will offer to the doctors of Chicago the opportunity of a perfect home, and it is the aim of the owners and their renting agents to tenant this building with doctors representative of their professions.

All information which may be desired, and detail plans of the building will be gladly furnished by Clark & Trainer, agents, 940 First National Bank building; telephone, Central 971.

THE
CHICAGO MEDICAL
RECORDER

OCTOBER, 1913

Original Articles.

INDICATIONS FOR DECOMPRESSION.*

By ARCHIBALD CHURCH, M. D., CHICAGO.

Gentlemen of the North-Western Surgical Association:

I wish to offer a few remarks drawn very largely out of my own experience as a neurologist in observing the work of surgeons upon the skull, for those conditions which occupy territory belonging to both lines of special practice.

This term decompression is the application of a name to many operations which in the past and in the present have been done with high hope and expectation of benefit, to be denied any fruit in the sequel and to be looked back upon with chagrin by all concerned. It is only a palliative operation at best.

Decompression, of course, implies a procedure which shall reduce or remove abnormal conditions of pressure within the skull. Pressure within the skull may be overcome by different methods. For instance, spinal puncture, temporarily at least, gives control of intracranial pressure. A brisk cathartic will do the same, as will venesection. These less serious procedures may often be used by the surgeon with great benefit for the temporary amelioration of the case and also as a means of securing evidences and indications for the more pronounced procedure of craniotomy. For example, a case which seems to present symptoms of compression, may be temporarily benefited by a spinal puncture to a degree which is proof positive of the desirability of more permanent decompression by an opening in the skull and dura. This matter, however, of testing the pressure within the skull by a spinal puncture must be adopted

*Presented before the sixth annual meeting of the Surgical Association, Chicago & Northwestern Railway.

with a certain degree of caution, because in those lesions which interfere with the circulation of fluid between the skull and spinal cavity, as, for instance, in certain of the hydrocephalic conditions where the presence of a granuloma or other neoplastic formation near the foramen magnum has interfered with the free flow of fluid between the skull and spinal cavity, no effect follows spinal puncture as far as the contents of the skull are concerned. In cases where there is a tumor in the base, removal of the pressure in the lower levels of the spine induces such immediate downward pressure of the medulla upon the foramen magnum that a fatal termination at once ensues. All suspected cases of intracranial pressure where it is supposed that the growing body or the extensive lesion is in the basilar region, should not be submitted to spinal puncture lest it induce an immediate fatality.

Intracranial pressure, of course, has its symptoms, but these symptoms are often so vague and the clinical picture is so uncertain and ill-defined that a great deal of difficulty is presented to the clinician, whether neurologist or surgeon, in making a diagnosis. In those cases of increased intracranial pressure which have come about gradually, as, for instance, by the development of a neoplasm, the series of symptoms is somewhat more definite and constitute practically the diffuse symptoms of brain tumor, principal among which we name headache, vertigo, vomiting, choked disk, convulsions and some mental disturbance.

In these cases the vomiting is of the ordinary cerebral type in type cases—a type which is honored very frequently by its absence. Quite a number of cases of brain tumor, while vomiting, do not have the projectile type of vomiting and do have a certain amount of nausea, which is not supposed to be typical of cerebral emesis.

Then, again, cases of brain tumor, especially those affecting the cerebellum or parts in that region, are likely to have vomiting early in the day, before breakfast, like the matutinal vomiting of alcoholics. They are liable to vomit in getting out of bed, in dressing, or even in turning over in bed in the effort to get up. Variations in the projectile type of vomiting are common, and the only signs that are significant are a clean tongue and absence of the ordinary manifestations of indigestion.

The headache of intracranial pressure has nothing in itself that is significant, excepting perhaps its intensity, and this does not differentiate it from headache in other brain diseases. The headache of

brain tumor is very similar to the headache of meningitis, or even to the headache of a diffuse inflammation of the scalp. Its intensity, its persistence, its rebelliousness to treatment, and sometimes its localization or limitation to a certain portion of the head, may be taken as significant, but is of little value as a rule. So also the vertigo is of little importance. But the combination of vertigo, headache and vomiting, with a clean tongue, always raises a suspicion that the condition is of endocranial pathologic character and is usually associated with pressure. The probability of pressure is very much increased by the presence of optic neuritis, and finally if you have a choked disk the evidence of compression is complete. Choked disk alone points to increased intracranial pressure. And let me say that any surgeon who deals with conditions of the skull should qualify himself, if not already possessed of the necessary skill, to use an ophthalmoscope at any time of the day or night in any position in which he may find the patient. Nowadays every physician has an electric battery, usually six volts or thereabouts, in connection with his automobile, or is in close touch with an electric current of the commercial variety. The electric ophthalmoscope is of greatest aid and is a source of comfort and usefulness, especially at the bedside, because with the patient recumbent and with ordinary illumination, without the necessity of darkening the room and even without the necessity of using a mydriatic, a good view of the disk may be obtained; if not, the use of the mydriatic will secure it.

In the case of a patient with meningeal hemorrhage or with an apoplexy, intracranial pressure may be acute at the onset. If you see a patient with meningeal hemorrhage within half an hour after the onset of hemorrhage and the pressure condition is pronounced, the patient stuporous if not entirely comatose, with all the other manifestations of such a hemorrhage, commonly with dilated pupil upon one side, examination of his fundus with the ophthalmoscope will show not only congestion, but actual swelling of the disk. Finding such a swelling of the disk, you know you are dealing in all human probability with increased intracranial pressure.

The diagnosis of continued intracranial pressure confirms the necessity for opening the skull. As soon as the skull is opened and the pressure removed, again using the ophthalmoscope you will find that the cloudiness and swelling of the disk have receded. During the course of operations for removal of tumors of the brain, as soon as the skull is opened the choked disk, which is commonly apparent

and may be immensely accentuated before the operation, will be found in the course of a few hours to have receded to a slight extent and frequently in a few days to have completely disappeared. In the choking of the disk, therefore, we have an item of great diagnostic importance. When the patient presents a choked disk you are by that fact confronted with the necessity of decompression, because choked disk means blindness unless relieved.

Choked disk is not absolutely a sign of compression, because in pronounced anemias, even of a simple character, you may have a marked bilateral choking of the disk which is impossible to differentiate by the ocular appearance from that due to intracranial pressure, and this anemia may be attended by headache, vomiting and vertigo, making its differential diagnosis from a tumor almost impossible. The presence here of choked disk may lead to a decompressive operation which will certainly be of no particular advantage. The examination of the blood under these circumstances, the history of the case, and the appearance of the patient, should in most instances serve to prevent a mistake. But with very rare exception the rule holds that choking of the disk is a sign of intracranial pressure, commonly of long standing and one which is going to eventuate in complete blindness unless relieved.

The focal symptoms which are associated with increased intracranial pressure depend upon the location and character of the lesion. This is a subject of too great extent for me to enter here, but topically, that is, in a surface fashion, you may find evidences of serious disturbance within the skull, if of long standing, which we commonly overlook. For instance, if, especially in individuals before the age of 20, you will place a stethoscope upon the brow and percuss upon the parietal surface, you will get a most beautiful cracked-pot sound owing to the play of the widened sagittal suture. But, of course, you will bear in mind that under the age of six this suture is not ossified, and to elicit this sound would have no particular value at that time; but in these cases you may by palpation find a widening of the suture due to distention of the skull. So, too, if you will go over the head very carefully with the tips of the fingers, it may be your good fortune to land upon a zone in which erosion has taken place to such an extent that your fingers almost penetrate the skull. This cranial erosion of bone under a new growth is peculiar. I have found erosions of this sort which could be palpated and which upon operation were found to embrace a considerable extent of bone, and yet how few of us go over

the heads of our patients for the purpose of discovering this absolute evidence of a subjacent pathologic state.

Surface thermometry, for which our means are commonly not adequate, will sometimes be valuable. A piece of protective, through the center of which is thrust the bulb of a clinical thermometer, may be applied to the surface of the head, and it will happen not infrequently that if there be a tumor or an inflammatory process, whether of the bone or in subjacent parts, you will find a local elevation of temperature. You may introduce the thermometer into the ear in mastoid disease or an abscess or an inflammatory process of the meninges, thus deriving local, topical evidence of pathologic disorder, and a guide to the subsequent surgical management of the case.

Local tenderness is of some slight significance if circumscribed and persistent.

The mechanics of endocranial pressure are not quite as simple as it would seem. That is, given the cranium as a closed box which is capable of holding only so much material, if other material develops within it or is forced in from the outside you can understand it means increase of pressure which will be distributed evenly throughout the entire surface of the skull. But this container and its contents are made up of vital tissues and serious modifications are thereby imposed and must be taken into consideration. I was forcibly reminded of this some time ago in a case I saw with Dr. Murphy. A year previous he had done an operation for a cerebellar tumor which resulted in the removal of a portion of the cerebellum and a neoplasm of considerable size, and, of course, required a large skull opening in the occipital region. The boy had gone blind in spite of the operation, which was done too late to save sight, and at the time I saw him a large tumor had developed at the skull opening as large as an orange. By its translucence it was evident that it contained fluid. The question was what to do, whether an operation should be done to try to fill that opening with osteoplastic or heteroplastic material, because the tumor was very sensitive and looked as though it would go on to rupture. A question arose as to whether the cranial cavity communicated with the spinal spaces, and to determine this point a spinal puncture was made. This spinal puncture gave issue to only a few cubic centimeters of spinal fluid and did not at that time produce any change in the tension of the hygromatous tumor at the back of the head. In forty-eight hours afterwards, however, we were all amazed to find

that the tumor had disappeared. There had taken place in that tumor the same thing that occurs in hydrocele or any other serous accumulation—the removal of a certain amount of fluid will be followed by absorption of the rest. The reduction of pressure to a slight degree had permitted absorption to take place and the tumor had disappeared. It refilled, and again disappeared under similar procedure, and after spinal puncture had been resorted to a number of times in this case the tumor remained absent, indeed it was substituted by a deep concavity. That was three years ago. At the end of two years the condition was as I have described, one apparently of cure of the hygromatous tumor.

It has been shown by Southard of Boston that after concussion of the brain there occurs a disturbance of osmosis of the fluid within the parenchymatous structure of the brain and the meningeal spaces, and it is this disturbance which prevents absorption and leads to the pressure conditions which sometimes follow even slight concussing applications of force.

We have to remember that we are dealing with a cavity which normally has secretory and absorptive processes, and one where traumatic and other conditions, perhaps toxic or autotoxic, may interfere with the resorption of fluids, consequently that it is not merely a case of a bottle too full of something which requires an outlet, and therefore that the mere decompressive operation may not have the influence and the desired effect which seem at first glance to be attributable to such procedure.

I believe decompression is most commonly employed in cases of tumor, and into this I need not go practically. I do not know that decompression is often called for in acute traumatic instances unless it be in a case where there is supposed to be hemorrhage within the skull which could not be localized by ordinary examination of the meningeal areas. But the presence of choked disk in these cases, which persists, increasing in intensity, is the guide to a determination whether or not we shall open the skull.

In cases of encephalitis or cerebritis, decompression operations in the hands of three or four foreign observers have produced great benefit. It does not seem to me operation is altogether indicated in these cases, because decompression could be brought about by spinal puncture, drastic cathartics, or venesection. This question of cerebritis is, I think, of great importance, because it is only within a few years that we have realized that the brain is subject to inflammation—actual inflammation of the brain as a disease, either diffuse or circumscribed,

until recently hardly entered into our conceptions. And scarcely many weeks now pass that one does not see acute or subacute encephalitis mistaken for tumor.

In hydrocephalus the decompression operation has been employed, and here, according to Krause, is best located in the region over the cerebellum in order to get at the point where the accumulation of fluid makes its escape most readily from the great ventricular area of the brain and the passages between the ventricles. I have had no personal experience with this means of decompressing hydrocephalus, but have been associated with some cases in which the lateral ventricles were continuously drained by the use of a permanent drainage tube passing from the ventricle through the skull, giving issue to the contents of the ventricles into spaces beneath the scalp. This measure was not effective, proving only of temporary benefit. But by mean of a glass tube with a flange having a minute hole through which a suture could be passed fastening it to the dura, constant drainage beneath the dura has been secured with immense benefit as far as the hydrocephalus was concerned, and with prolongation of life for a good many years. This treatment of hydrocephalus has received as much support from the ingenuity of Chicago surgeons as from any other source.

In epilepsy decompression has been used, and I think sometimes not adversely. In cases of traumatic epilepsy I think there is no question as to the necessity of an exploratory operation, either direct and guided by the evidence of traumatism, as by scars or depression, or by manifestations of the fits when Jacksonian in character. In every case of Jacksonian and general epilepsy, even remotely attributable to traumatism, I urge exploratory operation. But in these cases, whatever the result, my hopeful spirit is chastened by the fact that many cases of epilepsy are modified by the most indifferent procedures. Several years ago W. W. Keen of Philadelphia published a paper of the utmost significance in this connection, entitled "The Curative Effect of Operation *per se*," and he related a large number of cases of epilepsy in which various operations upon the skull, upon the nose, upon the pharynx, upon the genital tract, and even operation for ingrowing toe-nail, had resulted in a more or less prolonged cessation of the fits. In one case of epilepsy I know that the condition was cured for the time by the patient being hit on the head with a baseball bat, and in another case by an extensive scald of the body. Cases of epilepsy give up their fits entirely during a course of typhoid. We have to bear this in mind in trying to estimate judicially the effects of various accidents and operations in causing the cessation of

epileptic fits. It is only after years have gone by that we can determine that surgical intervention or medical control has really established a cure.

About twenty years ago an ingenious Frenchman did a decompression operation in idiocy. His idea was that owing to early ossification of the sutures of the skull, the cranial box was inadequate to hold the growing cerebral contents, and he split the skull longitudinally and in the opposite direction so that the bones might spread out, as in the peeling of an orange, and give the contents of the skull a chance to breathe. In those cases we jump at any straw, and within the succeeding five or ten years the skull of pretty much every idiot we could get our hands on was cut, split and bisected, and the four leaves, extending from one ear to the other, and from the glabella to the occipital protuberance, were pried up from the dura, which was, so far as I know, never incised, and we looked hopefully for improved wits in our unfortunate patients. And, strangely, some patients showed great benefit. I remember one child who was the despair of his parents, a great burden to his family, who after this operation, instead of being destructive and noisy, dirty and filthy, became placid, fairly well ordered and even cleanly, and apparently showed recognition of those about him. This was the best case with which I came in contact so far as being well selected was concerned, because the sutures were ossified. In most cases that I saw the sutures were not ossified and the cutting of the bone really accomplished nothing as far as the mechanical situation was concerned. But in this case there was an early ossification of the sutures. However, in the course of a year the child relapsed into the former condition, although there was still plenty of room as far as the opening in the skull would indicate. What occurred was that, under the influence of operative intervention, hope had sprung up in the hearts of the family, they had paid more attention to the child, trained and taken care of him, and the patient had shown a certain limited response to their efforts.

The question is where to make a decompression. I do not feel that the decompression that is favored by Cushing is a good one, that is, it does not decompress. His idea is to make the opening under the temporal muscle which subsequently is brought together to protect the underlying brain tissue. At best in this region he can secure an opening that is of rather small dimensions vertically, somewhat longer anteroposteriorly, and through which a comparatively small amount of bulging will follow in case he secures union of the muscles and fasciae of the temporal region. So it is an inadequate operation, al-

though partly due to the loss of blood in the opening of the skull temporary improvement is likely to follow. Its cosmetic advantages are, it seems to me, its only claim to favor.

In nearly every case where a decompressive operation is to be done, a careful study of the patient will indicate the advisability of operating in a certain region; that is, a careful study of localizing symptoms and signs will justify you in using the parietal, the occipital, or the frontal region, on the right or the left side, so that the opening may be made first of all for decompression, secondly for exploration, and sometimes what is equally important in the third place, that if there be a subjacent neoplasm, by opening in the area near it the tumor will move towards the opening so that the operation will finally result in an enucleation, which would be impossible without the preliminary decompression.

I would like, not as a surgeon, but as an onlooker and bystander, to speak of some elements in the technic of these head openings. I am particularly favored in that I see a great many surgeons operating this field. First, let me say that there is a little trick about controlling hemorrhage in operations upon the skull which was, so far as I know, devised by McArthur of Chicago. He uses rubber bands such as may be purchased by the gross if desired, such rubber bands as are used in offices to put around a bundle of papers. Three or four of these may be sterilized and placed over the shaven crown, and make admirable constriction, better than could be made by many of the appliances which have been devised for this purpose. And over the scalp, if you choose to lay gauze, another band of this sort holds it smoothly in place. These do not slip over the eyes and make serious pressure upon the globes as I have known to occur with the Esmarch tube, but stay in place, and, unless the patient has a very deep fossa in the temporal region, they admirably control hemorrhage from the scalp.

I have seen operators lose valuable time, the patient under an anesthetic, in controlling hemorrhage from the diploe. A slight tap with a blunt chisel will control this hemorrhage. I have seen operators fuss with bone pegs and Horsley's wax in the effort to control hemorrhage in this situation. In some cases, compression with bone forceps will answer instantly.

In opening the skull there is a great difference in the skill and rapidity of operators. I took occasion one day to time one of my friends, and he made an osteoplastic flap in just eight and one-half minutes from the time the scalp incision was made until the bone was turned back. He did it with the Devilbiss forceps without taking it

out after each bite, but by rocking the instrument as he went along; and in eight and one-half minutes he made an opening which was practically four inches in diameter, which would mean a cut of nearly twelve inches in length. Other operators make a number of openings which they then connect with one instrument or another. And here I want to speak in terms of condemnation of the wire saw. I never saw it used without it produced incision of the dura. Even with the protector that is introduced from one opening to another, which gets in the way and is removed or slips out of place, it is likely to make a cut in the dura, and at the worst possible place because it makes the cut at the margin of the skull opening, so it is almost sure to produce hernia subsequently. In my estimation, there is no instrument that compares with the rongeur. The various motor-driven appliances usually fail at the critical point, just after starting. One that was devised by Neff, formerly with Murphy, worked well sometimes, but in an equal number of cases the drills or cutting burrs broke, necessitating the discarding of the instrument and returning to other means.

I wish I might urge you to throw away all the mallets and hammers you might be tempted to use about the skull. I have seen surgeons take chisels of various kinds and descriptions to enlarge or cut the groove in the skull or to make the opening in the bone, and I always shudder when I see it. This rapping upon the skull with a metal hammer, even with the intermediation of a cutting tool, I am convinced is a bad thing. About twenty years ago, in connection with the late Dr. Fenger, we made a number of experiments on this subject. The skulls of dogs were opened with chisels in a manner analogous to that used in surgery, and subsequent examination of the meninges and of the underlying brain tissue in these dogs showed that in every instance we had produced lesions by the use of the hammer and chisel. I am glad to see that the chisel is discarded by Krause, in whose magnificent book of recent appearance you will find the fact stated very categorically.

After the cut is made, many surgeons have great difficulty in breaking the bone at the uncut portion of the flap. A maneuver I have not seen described, but have seen employed a number of times with the best effect, is to use an elevator at the upper or tongue portion of the flap, which is turned over to an assistant to make steady prying and then an indifferent tool, as the handle of a knife, is laid across the base of the bone flap outside the scalp, and a slight tap of the hammer will result in fracture of the bone almost in a linear

manner at exactly the point desired. Instead of having to pry and work and fuss and then sometimes fail, this little procedure serves to hasten the operation and is very satisfactory.

Then the opening of the dura is variously carried out. The old stellar incision occasionally finds an advocate, and I think it is not a bad one, in spite of what some say. There seems to be a prejudice on the part of surgeons always to make the base of the dural flap downward, because, perhaps, the meningeal arteries run upward. If the opening is near the crown of the head it is better to make the base of the flap upward, whereby you avoid danger of invading the longitudinal sinus, and by traction upon the flap you can easily uncover the brain quite to the median line, at the same time being secure about the sinus and the venous complication which might ensue. Also do not carry the incision of the dura close to the margin of the bone. Leave, say, one-quarter of an inch all round and snip at each corner, or in a circular opening several snips. This little marginal flap of dura turns up over the sharp edge of the bone and prevents the intracranial pressure of the brain producing lacerations at that point.

If in any possible way you can avoid drainage, leave it out, because I have time after time seen hernias of the brain follow down drainage channels. Commonly you are dealing with aseptic conditions, and drainage is no more necessary there than it would be in the muscle masses, though a great deal more dangerous.

WHAT SHALL AMERICA DO TO BE SAVED?

By L. M. MERVIN MAUS,

Colonel, Medical Corps, U. S. Army, Department Surgeon, Eastern Department, Governor's Island, New York.

The study of vital statistics recently has revealed an astonishing increase of defectives in the United States in proportion to the population of the country, with a corresponding increase in the feeble minded and epileptic institutions, reformatories, insane and inebriate asylums, prisons and poor houses.

The general stability of our national character is likewise deteriorating *pari passu* with its mental and physical degeneracy. This is expressed by a growing moral insensibility and lowering of business integrity everywhere, a general wave of immorality which is sweeping over the country, followed by frequent divorces, increasing municipal, police, and social scandals, and a large number of crimes, robberies and murders which are of daily occurrence.

Statistics from every section of the country are reporting the in-

creasing number of defectives among our school children, as well as among the young men of the present generation, who present themselves for enlistment. The New York Bureau of Municipal Research reports that less than 8 per cent of 1,500 school children found in the Bowery district had perfect sight, hearing, teeth and heart action.

Examinations on a large scale are being carried out among the school children of New York City and a widespread campaign started for the standardization of the children of the country. Score cards are to be liberally furnished upon which the weight, height, physical measurements, condition and mental development are to be recorded, and all defects entered.

Great difficulty is experienced by the War Department in securing a sufficient number of suitable recruits to fill existing vacancies, on account of the mental and physical degeneracy of the young men who present themselves for examination. During the year of 1912 only 35,837 recruits were accepted from 159,673 applicants examined, a rejection of 76 per cent.

New York physicians and surgeons will tell you that a large proportion of the clientele found at the public clinics, city hospitals, reformatories, insane asylums and charitable institutions of city and state are foreign born. For the past generation a steady stream of muddy and defective germ plasm has flowed into the gates of our country from southern and eastern Europe and northern Africa, which threatens to obliterate the good old stock of our forefathers and destroy the character of American civilization.

The moral and religious training, as well as the civilization of this recently imported degenerate stock is greatly inferior in every respect to that of the honest and peaceful sons of the Celestial Kingdom and the canny, but warlike descendants of the Sun Goddess, who are knocking at our western doors for admittance.

It is only necessary to investigate the nationality of the degenerates who assassinated or attempted to kill Garfield, McKinley, and Roosevelt; those who are members of the Black Hand and expiate their crimes at Sing Sing; who were implicated in the Rosenthal murder and police graft; who fill our reformatories, insane asylums, prisons, hospitals, and poorhouses, to learn what the defective stream of European immigration is doing for the American nation.

Scientists and health authorities everywhere have been searching for the cause of and remedy for this appalling racial degeneracy, which is annually represented by hundreds of thousand of defective lives, at a cost of billions of dollars from state and national treasuries.

For this widespread national degeneracy we must look principally

to heredity, the "racial poison" alcohol, and the defective stream of foreign germ-plasm which is flowing through our immigration gates, although tobacco, narcotic drugs, prostitution, sexual perversion, lack of moral and religious training at home and in school, and the double standard of morality are contributing causes.

The present interest displayed in the study of heredity and eugenics indicates plainly that the world is on the verge of a sociological revolution which will prove more beneficial and far reaching in its effects on humanity than its deliverance from feudalism and intellectual restriction during the middle ages.

For ages, health officers have been waging a war against cholera, plague, tuberculosis, typhoid fever, and other fatal diseases which result from virulent germs or protozoa. Today the profession of medicine is turning its attention to the evil spawn of mankind, which is expressed by the mental and physical wrecks found in our hospitals, prisons, jails, reformatories and insane asylums.

Preventive medicine means more than vaccination against disease, disinfection, and sanitation. It means as well the study of heredity and practice of eugenics, subjects which every physician should consider, who is anxious to contribute his share to the prevention of disease and improvement of the race.

The splendid work of Darwin, begun half a century ago, on the origin of species by selection, has stimulated the study of heredity and strengthened the dream of the eugenicist for the attainment of an ideal race.

More than 2,000 years ago the great philosopher Socrates concluded the best way to develop a perfect race was to begin with children ten years old and banish all others from the country. Singularly enough, an intelligent Filipino told me a few years ago that decapitation of all his countrymen over ten years old would become necessary before anything could be done for his degenerate race.

The fundamental factors in the development of the family and race are heredity, training, and environment, which are known as the triangle of life. While training and environment are essential to the formation of character and physical development, heredity will ever remain the determining factor of the three and be regarded as the base of the triangle.

Dr. Davenport defines environment as what we have—training as what we do—and heredity as what we are. Environment and training may result from the fortuitous circumstances of life, which are ever changing, but heredity is fixed by immutable laws and defies the intervention of man.

The excellent results which have followed breeding and the mingling of select strains among animals and plants have been known to science for ages and it seems singular that these principles have not been applied to the improvement of the human race. Voltaire said nearly two centuries ago, "If as much care were taken to perpetuate a fine race of men as to prevent the admixture of ignoble blood in horses and dogs, the genealogy of everyone in the world would be written on his face and displayed in his manners."

No one who understands the law of heredity can expect sound, healthy, and intelligent children from unsound and degenerate stock. Jesus, the Divine Healer, was aware of this fact when he said, "A good tree cannot bring forth evil fruit, neither can a corrupt tree bring forth good fruit." When the general public learns that the diseases and evil traits we possess were transmitted by those who are mouldering in their graves, thousand of defective sons and daughters will curse the memory of their dead parents, who fastened upon them the seeds of degeneracy.

Statistics inform us that two and a half million babies are born annually in the United States who are feeble minded, epileptic, deaf, dumb, blind, insane, or otherwise degenerate as a result of heredity. Owing to previous lack of interest in such statistics it is impossible to present accurate figures but without doubt a large proportion of our mental and physical degenerates and criminals result from heredity, or the "racial poison," alcohol.

The effects of heredity are markedly shown in the mating of epileptics and the feeble minded, the progeny of which are invariably epileptics, feeble minded, or both. Bulletin No. 4, Eugenics Record Office, 1911, states that of five epileptic matings, from which 14 known children resulted 8 were epileptics and 6 feeble minded, and from 6 feeble minded matings with a progeny of 21 known offspring, 16 were epileptic and 5 feeble minded.

Two mentally defective parents will produce only mentally defective offspring, and no imbecile is born except from imbecile parents. This law has been demonstrated through the study of scores of families at the Training School for Defectives, Vineland, New Jersey.

It has also been found that many strong persons carry defective germ plasm, which may not show itself in the progeny unless united with germ plasm of other defective families. Hence there is the greatest danger in the consanguineous matings of such families.

The study of embryology has taught us that reproduction of the human organism results from the union of the ovum and spermatozoon,

and that during this complicated process the network of the nuclei of the two cells are changed into an equal number of chromosomes, which are regarded as the bridge over which the stream of heredity passes.

Besides the chromosome theory of heredity we have the bio-chemical theory, which has many strong advocates. In support of the chromosome theory it will be remembered that they develop from the nuclei, which are the only portions of the two cells which take part in fertilization.

The influence of good stock may be illustrated by the descendants of three remarkable families, whose distinguished qualities have contributed so much to the organization, growth and character of our people and country. The progeny of Elizabeth Tuttle, a rarely gifted woman of Massachusetts, who married Richard Edwards in 1667, includes scores of brilliant educators, jurists, divines, inventors, and literary characters.

From Richard Lee and Letitia Corbin, of Virginia, have descended an illustrious line of statesmen, military leaders and cavaliers, while from John Preston and Elizabeth Patton of Kentucky have been derived many famous jurists, divines, and military leaders.

The intellectual and noble progeny of the Edwards, Lees, and Prestons stand out in marked contrast to the defective and criminal progeny of the "Jukes family," of New York and "Ishmaelites of Indiana," whose descendants for five generations have filled the insane asylums, prisons, poor-houses, and brothels of the communities in which they lived, and cost their respective States millions of dollars.

At the beginning of the twentieth century, 1,394 descendants of the eminent divine and educator, Jonathan Edwards, the grandson of Richard Edwards and Elizabeth Tuttle, were identified. Among the progeny of this remarkable man were found 13 presidents of colleges, besides principals of many educational institutions, 60 physicians, many of whom were eminent, 100 clergymen, missionaries, and theological professors, 75 army and navy officers, 100 lawyers, 30 jurists, 6 prominent authors, and 3 United States senators. Besides these, many members of congress, framers of State constitutions, diplomats, mayors of cities, presidents of railroads, banks, and insurance companies and others engaged in important manufacturing and commercial enterprises. It is not known that any member of the fraternity was ever convicted of crime.

In striking contrast to the Edwards family, stands out prominently the progeny of the Jukes family, which has been traced back to the union of two sons of Max Jukes, a besotted and indolent back-

woodsman of western New York with two indolent harlot sisters, one of whom was known as "Margaret, the mother of criminals."

The progeny of these degenerate families includes over 1,000 descendants, 540 of whom were identified in 1877. Dugdale discovered that about one-third of this family died in infancy, 310 were paupers who spent 2,300 years in almshouses, and 440 were physical wrecks. Over one-half of the women were prostitutes and 130 convicted criminals, 7 of whom were murderers,

Not one of the entire family had a common school education and only twenty learned trades, and ten of those died in prison. It is estimated that this family up to 1877 cost the State of New York \$1,250,000, and it is more than probable the sum has been doubled since then.

A most convincing argument of heredity may be found in the progeny of Martin Kallikak, of New Jersey, who fortunately has furnished a control experiment. During the Revolutionary War, Kallikak, a man of fine physical type, took advantage of a feeble minded girl, who bore him a feeble minded son. This son married and became the progenitor of 480 known descendants, 143 of whom were feeble minded, while the remainder fell below mediocrity. After the war he married a Quaker girl of good ancestry, from whom 486 descendants have been identified. All of the progeny of the second mating have been found of normal mentality, except two, who were classed as subnormal, but not feeble minded.

While the introduction of other streams of germ plasm doubtlessly influenced the character of these two lines, it is more than probable that the defective germ plasm of the feeble minded Revolutionary mother, was responsible for the mental defect fastened on 143 of her progeny.

Marriages are regarded from many standpoints, as a climax of love, union of property interests, or to fix the social status, but rarely from the standpoint of sound, healthy children. Regard it as you may, marriage is a serious matter and everyone who contemplates such a step should look well into the mental and physical qualities of the prospective family of in-laws, remembering that the son or daughter is a chip from the same block.

Good stock does not mean only the children of the wealthy and prominent families; it means the progeny of the sane, moral, and mentally and physically sound, which is a lineage greater than that of a king. As race builders we are responsible for those who follow, and as patriots should adopt for our war cry, a sane and healthy nation. The country needs the progeny of the moral, mentally strong

and virile for the upbuilding of a race of people who should become the great leaders in the world.

Many of the states have already passed laws forbidding the mating of the insane, feeble minded, imbeciles, epileptics, drunkards, narcotic addicts, and those afflicted with venereal diseases. Laws have also been passed in California, Indiana, Nevada, New Jersey, New York, and Washington, legalizing the sterilization of the defective, pauper, and criminal classes. The great Creator suggested the enactment of such a law when he sentenced the defective husband or wife to a childless life.

Alcohol should be regarded as the most dangerous narcotic the world has ever known, and its addicts degenerate, just the same as those who use morphine, cocaine, or other dangerous narcotic drugs. Research, experiments, the epileptic and feeble minded institutions, insane asylums, prisons, and post-mortem table constantly teach us what alcohol is doing for the human race. There remains no longer any doubt of the special and general results of the great "racial poison" on child, man, race, or community.

Few people understand the far reaching effects of alcohol on the family and the race at large. It is an intricate and difficult problem to approach on account of its social connection with many of the most prominent and influential men and women of the country, who still hold very liberal views concerning its use.

The effects of alcohol on the intellectual and mental faculties generally have been made the subject of a most exhaustive study, and we find all of them lowered, even through its moderate use. This is the unanimous verdict of Kraepelin, Furer, Hodge, Crothers, Fisher, and other great authorities on the subject. From a careful study of vital statistics it has also been proven that alcohol even in moderate quantities shortens life, while total abstinence lengthens it.

Naturalists claim that the longevity of animals should be computed by multiplying the growing years by five. Man grows until he reaches thirty and hence under normal conditions should average one hundred and fifty years. It is a significant fact that Sweden, which is the most temperate nation in the world, enjoys the greatest longevity, while that of beer drinking Germany stands among the lowest.

From the tables prepared on heredity it has been noted that the children of drinking parents frequently suffer from forms of nervousness and erraticism besides the more serious diseases and conditions of degeneracy.

Dr. T. D. Crothers, states that he has observed among 500 cases of alcoholism 225 with a distinct history of parental inebriety, while

Dr. Norman Kerr, president of the British Society for the study of Inebriates, informs us that he has observed among 1,500 cases of alcoholism 755 with the same unfortunate history.

The child conceived by an intoxicated parent is never up to the child conceived by sober parentage, and rarely rises above mediocrity. While there is more or less immunity to the alcoholic addict, there is never immunity to the germ plasm which is invariably injured by the slightest dilution of alcohol in the blood.

Dr. Stockard states that diseased and weakened germ cells give rise to defective individuals under all circumstances, while perfect germ cells produce a perfect offspring only when the embryo develops in a normal or favorable environment. This fact has been demonstrated in alcoholic experiments with eggs of the lower vertebrates, which develop outside of the body. Fresh fish eggs, when exposed even to the fumes of alcohol produced veritable monsters.

Racial degeneracy has overtaken the American negro since his emancipation in 1863. This is no doubt due to his change from total abstinence and healthy surroundings as a slave, to alcoholic dissipation and a poor environment as a freedman.

Before the Civil War the negro was trustworthy, truthful, and practically free from mental and physical blemishes, while today a large number of them are immoral, untruthful, indolent, and degenerate. Besides, their longevity has diminished and criminal tendency greatly increased.

German vital statistics have shown the defective results from alcohol (beer) among the sons of brewery employes, 76 per cent of whom were found unfit for military service. There can be no reasonable doubt but that the crime and degeneracy found among the lower classes of the English people are largely due to the general use of alcohol among both sexes.

The mental and physical integrity of our nation until now has been preserved through the germ plasm of our high minded and intelligent American mothers who formerly rarely indulged in alcoholic beverages. Today the growing tendency among young women to the use of cocktails and highballs is becoming the greatest menace of the age, and unless checked will lead to the degeneracy of our race, as is the case with France and other European countries where alcoholic beverages are in general use.

Following the general use of whisky as a beverage fifty years ago many of the most prominent and intellectual families of our country have been eliminated and not infrequently in the second generation. Many of their representatives became drunkards and died childless,

or left children cursed with feeble mind, epilepsy, tuberculosis, insanity or some other form of degeneracy, which rendered fertility impossible.

Study the family records that have been gathered by the eugenist on the subject of alcohol and the thinking world will stand aghast. Among the statistics in my possession are many quite similar to the following: Judge C and wife, superior people, with a family of four sons and three daughters. The judge was an intelligent gentleman of the old southern school, who took his toddies regularly and occasionally "went on sprees." He died during middle age. All of the sons who were of ordinary mental calibre, became alcoholic addicts and died young, several of them as pronounced drunkards. One of the boys married and became the father of a feeble-minded child. Two of the daughters died at a young age, one a morphine addict, the other from cancer. The third daughter, now an old woman, suffered from erraticism, which rendered her intolerable to society.

Another equally significant family history: Mrs. J., a beautiful woman of healthy, moral family, was married at the age of twenty to a young man of equal social standing, who drank regularly, as was the custom of the day, and on occasions became as "drunk as a lord." During his brief married life of twelve years his wife bore three sons and two daughters. All of the sons and one daughter became alcoholic addicts and died at an early age, while the second daughter became a morphine fiend and a sex violator.

After the death of the first husband the widow married again, this time to a total abstainer of excellent character. Singularly enough she again bore five children, three boys and two girls, all of whom developed into splendid men and women and became valuable members of society.

Prof. C. R. Stockard (Cornell University) recites the experience of a sober, industrious woman, who married a man of high moral habits, and became the mother of three normal children. After the death of this husband she married a man of intemperate habits, and bore three more children, one of whom became a drunkard, one an epileptic, and one a degenerate. She married again after the death of the second husband, this time to a man of fine type and became the mother of two normal children.

But why enter into further details, or wonder at the decadence of families, whose names once adorned the pages of history. Search the records of the best families of the country, north and south, and you will discover that alcohol has been the racial poison in a large number of those who have passed out of existence.

With a full knowledge of the causation of human degeneracy, it becomes the sacred duty of every patriotic American citizen, as well as

the State, to resort to such measures as may be necessary to avert an impending national catastrophe. A campaign of education should be started in every community to awaken public conscience, followed by efficient general laws on the subject of marriages, prohibition and immigration.

Laws should be passed which will insure the elimination of the feeble minded, epileptic, inebriate, pauper, insane, criminal, and deformed classes besides those who are suffering from specific diseases and defective sense organs such as the blind, deaf, and dumb.

In order to accomplish this desirable end laws should be passed for the sterilization or segregation of the mentally, morally, and physically unsound among the criminal and pauper classes during the productive period, and the restriction of marriage privileges, with a view to the elimination of undesirable family diseases, conditions, and traits.

No one should be permitted to marry unless authorized by a legally constituted board of medical examiners. Applicants should be pronounced free from all mental, moral, and physical conditions which affect heredity. Disqualifying causes should include the alcoholic addict and sex violator just as well as the mental and physical defective.

Marriage qualifications are attracting general attention throughout the country and the day is fast approaching when the health certificate will become as necessary as the marriage license. Many progressive ministers of the gospel already require such certificates before performing the wedding ceremony, and it is hoped, in the interests of the race, that it will become a general law during the present generation.

The role that alcohol plays in disease, pauperism, racial degeneracy, and graft, makes its control by the State absolutely necessary, and in order to save society the saloon must go. To accomplish this necessary reform no candidate for State or municipal office should be endorsed by the medical profession who had not stated satisfactorily his platform on the control of the three great social evils—prostitution, venereal disease, and the saloon.

Total abstinence should become a requirement of every official holding office within the suffrage of the people. The importance of the duties which law makers, judges, State, and municipal officials, the army, navy, and police are called upon to perform demands the highest class of intelligence and efficiency qualities which are impossible with drinking men. Besides, the alcoholic addict is more liable to lend himself to graft and corruption in office than the total abstainer.

In the interests of a sane and healthy race, national legislation against the manufacture, importation, and sale of distilled liquors as beverages should be enacted and enforced.

Everyone who strives for racial perfection must cling to total abstinence, for there can be no compromise on the great question of temperance. In order to build up a strong, virile people we must protect the young against the race poison, remembering that the child of to-day is the citizen of tomorrow.

In order to check the stream of defective foreign germ plasm, which is flowing into our country and fouling our good old American stock, radical changes must be made in our immigration laws.

The office of immigration agent should be organized in connection with the Bureau of Immigration, and no one should be permitted to enter our country as an immigrant who was not properly vouched for on the other side. The duties of such agents should include a research into the family history of each applicant as well as inquiry into the social, moral, mental, and physical condition.

In conclusion let me state that never in the history of our country were strong and courageous advocates of the study of heredity and practice of eugenics more urgently needed than now. Live wires with progressive ideas of life and health, who are not only able to teach our young men and women how to live but the necessity of selection and elimination in marriage, in order to raise children that will prove a blessing to the family and an honor to the nation.

SYPHILITIC EVIDENCES IN THE RECTUM.

By CHARLES J. DRUECK, M. D., CHICAGO.

This paper does not embrace all of the forms in which syphilis is evidenced by rectal lesions but only those commoner changes which are so easily mistaken for other diseases. Tumors of various sizes and ulcers of different degrees of depth when seen at the anus or within the rectum are often of confusing etiology, particularly to those who think hemorrhoids, irritable ulcer and cancer are the only rectal diseases.

Some time ago a young woman came to me who had a painful ulcer at the anus. She had suffered with constipation for several years and had frequently used an enema. Her physician had treated the ulcer with local applications and later by operation but only made conditions worse. I diagnosed a phagedenic chancre which the subsequent history proved was correct. We afterward found how this

young woman was probably accidentally infected by using a borrowed fountain syringe. There was nothing exceptional in her trouble except the uncommon location of the initial sore, and I mention it here because the rectal expression of syphilis is not a frequent finding and yet it occurs sufficiently often to mislead because the early ulcers may be considered simple or irritable ulcers and the later ones tuberculous or cancerous. Syphilitic new formations are frequently considered malignant. I also speak of this patient because chancres within the rectum or about the anus are sometimes said to be positive evidences of unnatural intercourse.

I hope by this paper to show that the same lesions, chancres, rashes, ulcers and new formations may be found here as occur in the same histological structures in other parts of the body but their clinical picture is modified by conditions peculiar to the rectum, because of the superimposed infection by intestinal micro-organisms, the constant abrasion of the surfaces by the feces and the irritation of the intestinal secretions.

Chancres within the rectum are rarely seen because they occasion little discomfort, only a slight discharge and disappear spontaneously. The ulcer when seen has the usual chancre appearance, a round indurated ulcer with sharp raised edges slightly undermined.

Chancre at the anus is somewhat more frequently seen than that within the rectum. Occurring in an anal fold it simulates irritable ulcer. The chancre seen in the young woman referred to above was quite as painful as an irritable ulcer. This statement is made notwithstanding that some authors say that anal chancres are painless. Anal chancres, like other ulcerations in this region, vary considerably in their degree of pain because occurring in different types of individuals, some of whom are more sensitive to pain than others. Also the degree of pain of any anal ulcer depends upon the depth of the wound. If an ulcer involve only the mucous membrane it will probably not be painful but if it go through the mucosa, and especially if it involve the musculature either by ulceration or by the fixative leucocytosis about the ulcer it is certain to be painful. If the induration surrounds the muscle fibers it immobilizes them and by squeezing the fine nerve fibers produces the same sensation as an exposed filament. Each time the stool passes it disturbs this mass as does also each action of the sufferer in sitting down, rising up, walking, sneezing or coughing. Sometime ago I saw a prostitute with a beginning chancre in the anal folds. At this time it was painless. Later it became phagedenic and had a wide infiltration which immobilized a large part of the sphincter. At that time it was very painful.

Chancres here run the same course as chancres elsewhere and leave small bluish white scars which are later very difficult to find. For this reason the diagnosis cannot be made afterwards.

SECONDARIES.

In the secondary stage of syphilis we find two forms of ulcerations that are confusing.

1. The mucous patch.

2. The large ragged ulcer, a sequence of necrosis produced by strangulation of circulation in the tissue surrounding the syphilides.

After the second week of the infection there is sometimes found at the muco-cutaneous junction an erythema which might be mistaken for an acute eczema. In a couple of days little vesicles appear, which break down and leave red or gray ulcers which are irregular in outline and upon an indurated base. They may be single or multiple. If multiple even though they are close together each ulcer preserves its own form. The edges are not undermined and the intervening tissue remains healthy. When the vesicles rupture there is a little thin discharge which keeps the parts wet and macerated. As the ulcers enlarge they become saucer shaped and are termed plaque porcelainique. The discharge and moisture of the opposed buttock produces an hypertrophy and before the mucous patches are healed there develops broad, flat warts, the *Condylomata lata*. This condition is not amenable to anti-syphilitic treatment.

Mucous patches within the rectum are very rare. Molliere (Tuttle) has reported only one case.

2. Ulcerations secondary to other syphilides.

When the mucous patch appears there also develops a surrounding congestion which interferes with the local circulation, sometimes causing the tissue to slough away. This may happen, however, with any other syphilitic eruption about these parts, i. e., papular, macular or pustular. These resulting ulcers are gangrenous gray in color, irregular in outline and ooze blood on slight touch.

Within the rectum the cellular infiltration and induration produces an edema of the mucous membrane. This swelling increases friction and necrosis is produced usually in several places. The ulcers are regular in form, circular in outline with clear sharp edges and usually the whole trouble is confined to the mucous membrane. If seen early they are amenable to treatment and may heal with very little resulting scar.

As I have mentioned above, these ulcers cause few symptoms, and if untreated they tend to enlarge both on the surface and in depth until they may extend through the deeper coats of the rectum and even into the pelvic structures. If they are on the anterior wall of the bowel the peritoneum may be opened and infected. If the patient also suffers from some other systemic disorder such as nephritis, tuberculosis or anemia the ulcer may spread out almost unlimitedly. Kelsey quoted by Tuttle reported a case where the whole rectum was encircled. The favorite location for these ulcers is about one inch above the sphincter but they are found less frequently higher up, even to the colon.

The ulcers are sluggish in appearance with sodden surrounding tissues and are usually chronic, although not always. Occasionally one is phagedenic for the reasons already assigned. These ulcers are liable to be confounded with tuberculous ulcers. Paget in his classical differentiation (*Med. Times and Gazette*, 1865) says they have sharp, well defined edges with level base. This is in contrast to the ragged undermined and indurated edges of tuberculosis. If several of these ulcers coalesce they appear as one large ulcer or as a lobulated ulcer, but they do not encircle the bowel as does the tuberculous. On the other hand, if tuberculosis has existed long enough to produce a number of ulcers in or about the rectum or a large excavating ulcer, we will find tuberculosis in other organs. There is also considerable purulent discharge from the tuberculous ulcer. The syphilitic ulceration produces a thickened leathery feel to the bowel but tuberculosis does not affect the elasticity of the bowel.

At the anus these secondary ulcers begin as small cracks or fissures in the anal folds. Their edges are somewhat raised but there is no surrounding induration. Where only one of these ulcers occur it is often very difficult to differentiate it from the simple irritable ulcer but of course the treatment of the syphilitic ulcer is worthless for the irritable fissure and vice versa.

TERTIARY CHANGES IN THE RECTUM.

There are three tertiary syphilitic changes in the rectum that are likely to be mistaken for other diseased conditions, viz.:

1. Gumma.
2. Fibrous infiltration of the rectal coats.
3. Syphilitic stricture of the rectum.

Gumma occur in connective tissue anywhere and the rectum shows no peculiarities in this respect. They may be single or mul-

tiple. The gummatous tumor is a soft, elastic mass beneath the mucosa. At first they are free between the mucous and muscular coat but later they may be attached to either or both coats. They are painless, usually about the size of an enlarged lymph gland, but may attain enormous size. By digital examination the feel of the mass somewhat resembles that obtained when palpating a uterus containing fibroids. These masses create no area of infiltration about them but give a nodular feel not unlike cancer and the mass is often movable in the submucous connective tissue just as are the early cancer growths. They do not abscess or occur in chains, and are thus differentiated from diseased lymph glands. When a gumma is incised the wound is prone to remain open.

Several years ago I saw a woman with what I supposed was a perirectal abscess. The patient was hysterical and a rectal examination was impossible. The mass was in the left labia and perineum. The whole surrounding tissue was red and swollen (a condition I afterward decided came from the applications). I incised the mass, thinking it was an abscess, but of course I found no pus. I then excised the mass and sewed up the wound but it did not heal. Seeing that the wound was not uniting excited my curiosity and the K. I. was pushed and the wound healed kindly.

Fournier (*Lésions Tertiaires de L'Anus et Rectum, Paris, 1875*) reported a fibrous infiltration of the rectal wall which he said was not syphilitic but rather parasymphilitic, hyperplasia of the mucosa similar to the sclerosis seen in the kidneys and liver. Some time ago I saw a case of this sort and found it very interesting. A woman, age 42 years, married, two children, no history of syphilis. About three years ago she noticed a hardness of the perineal body. The vagina seemed stiff and hard. Later she consulted her physician, who gave local treatment without success. Later she had been under the care of several physicians. When I saw her she suffered from obstinate constipation which was gradually getting worse and a tentative diagnosis of carcinoma had been made. On examination the anus was found in its normal position. The skin of the perineum and about the anus was rough and wrinkled, dry and thickened, but not sensitive. On attempting a digital examination I found the rectal wall hard, rough and tight about the finger, making introduction very painful. The narrow cylindrical three-quarter inch rectoscope was introduced with difficulty and the bivalve could not be satisfactorily opened. The hardness and fullness of the tissues was greatest at the anus and shaded away for a distance of five inches within the

rectum. The examination was painful and, although it stretched the tissues considerably, it did not cause any bleeding. I removed three pieces for microscopical examination and this clipping caused very slight bleeding, which was easily and promptly checked. These sections showed nothing but fibrous connective tissue.

SYPHILITIC STRICTURE OF THE RECTUM.

Just how frequently syphilis causes stricture of the rectum is a mooted question. Some authors claim that all non-malignant strictures are syphilitic while others are equally positive that strictures result only from ulcerative changes and that regardless of its type or etiology. I have in my work found strictures that were certainly not malignant and where I could not get a history of syphilis or where any response was obtained to syphilitic treatment. At any rate we do find that syphilitic stricture may follow any syphilitic ulcer, chancre, secondary ulcer or broken down gumma and that it has certainly peculiar characteristics. Syphilitic ulcers are inclined to follow the course of the lymph and blood vessels, and as that direction in the bowel is lengthwise the contracted portion is tubular instead of sharply annular as we find it in the inflammatory stricture. The rectal wall is also stiff, rough and leathery instead of nodular like that of cancer. Of course once ulceration occurs and septic infection is added the picture is so confused that a microscopical examination of a piece of the tissue may be necessary for diagnosis. Just in passing I wish to say that the chancroid while not syphilitic is a close cousin and frequently produces a very serious form of stricture.

HEREDITARY SYPHILIS.

Hereditary syphilis frequently appears in the rectum or anus during infancy. The syphilitic anal fissures are quite frequently seen. They may at first be mistaken for chafing due to carelessness of the nurse, but instead of healing kindly under treatment they extend by ulceration and are bathed in a fetid discharge. Usually, however, they respond nicely under antisyphilitic treatment.

CONFERENCE ON INFANT MORTALITY.*

A REPORT ON THE ENGLISH-SPEAKING CONFERENCE ON INFANT MORTALITY HELD AT LONDON, ENGLAND, AUGUST 4-5, 1913.

By J. W. KERR,

Assistant Surgeon General, United States Public Health Service.

At the instance of the British National Association for the Prevention of Infant Mortality and for the Welfare of Infants, and under the patronage of the King and Queen, there was held an English-speaking conference on infant mortality in London August 4-5, 1913.

Practically every English-speaking country was represented by delegates and members, no less than 50 being present from the United States alone, the Federal Government of which was represented by Asst. Surg. Gen. J. W. Kerr, of the United States Public Health Service. The conference was organized by a British committee, assisted by an American committee, of which latter Dr. H. L. Coit, of Newark, N. J., was president, and Dr. Philip Van Ingen, of New York, secretary.

The president of the conference was the Right Hon. John Burns, president of the local government board. He presided at the opening session, welcomed the visiting delegates, and presented an address on the subject of infant mortality.

During this address the importance of cooperation of English-speaking peoples in conserving health was emphasized, because 300,000 persons who left the British Isles last year were destined mostly to America, Australia and New Zealand, and because, on account of similarity of life, language, aims, and ideals, English-speaking peoples were all called to the common duty of seeing that their stock was good, that their children were clean and healthy, that their women were strong, and that their men were enduring.

The advantages of the country over the city as a place to rear children were commented upon, in urban communities children being denied the quiet, the rest, and the conditions essential for the health of child life. As emphasizing the value of environment and care, he stated that clergymen and gardeners enjoyed the longest and on the whole the best and worthiest lives, and that doctors' babies died at the rate of only 40 per thousand, whereas in the case of artisans the rate was 100 to 130, in the case of miners 160, and in the case of unskilled workers 150 to 250.

*Reprinted from Public Health Reports, September 19, 1913.

Mr. Burns then cited communities in which the infant mortality rate was high and attributed it to existing social and economic conditions which make it necessary for mothers to work in factories when they should be at home. In his opinion, for at least four months before the child was born and longer after the child was born "mothers should be mothers and not machines." Further, motherhood, the rearing of children, and the rearing of a happy race through the strong physique of fine boys and girls was the noblest of all callings, and the medical profession and others responsible were called upon to see that it was not made "the meanest of trades."

He stated that 40 per cent of the existing pauperism was due to widowhood and orphanhood, and the conference by its aims and endeavors would contribute to the wealth of the state. Furthermore, he referred to the extent of blindness and the venereal origin of from 30 to 50 per cent of it, and advised the conference to turn its attention also to diseases of maternity and paternity to the end that the prevalence of venereal diseases might be determined and their effects combated. Finally, it was pointed out that however much wealth might grow and trade increase, these things were as nothing to English-speaking peoples unless they had clean and happy homes in which the mothers could live under suitable conditions.

The proceedings of the conference were conducted in two sections, administrative and medical, the former presided over by Dr. Arthur Newsholme and the latter by Sir George Newman. The first and second sections of the administrative section were devoted to consideration of the responsibility of central and local authorities in the matter of infant and child hygiene and the third session to the administrative control of milk supplies. As a result of the latter it was evident that conditions differ in America and the British Isles. In other words, there appears to be in America more danger of the transmission of typhoid fever and septic sore throat by reason of their greater prevalence and the greater amount of milk consumed.

In the British Isles, on the other hand, the importance of a cheap milk supply, as emphasized, appears to have a deterring influence on the taking of necessary steps to secure clean safe milk. From the discussions it would appear that in the past few years greater efforts have been made in the former country to secure clean milk supplies, due, probably, to the greater apparent need for such measures.

Various suggestions were made for the improvement of milk supplies, based on peculiar conditions in the several countries. For instance, Dr. J. M. Beattie, of Liverpool, with the view to controlling

tuberculosis, advocated veterinary inspections of herds, maintenance of isolation farms by local authorities, payment of farmers for losses occasioned by isolation of cows subsequently proven nontuberculous, and inoculation tests by trained bacteriologists to detect infected milk. Dr. W. K. Savage, of Somerset, advised greater care at the farm, removal of administrative control of milk supplies from the hands of rural and small sanitary authorities, greater contribution on the part of urban populations toward the expense of administration, and education of both the producer and consumer as to the value and importance of clean milk. Dr. E. W. Hope, of Liverpool, referred to investigations which go to show that milk can be sterilized by electrical methods at less cost than by heating, and that its physical and chemical characters are not changed thereby.

Finally, the writer stated that in America dairy inspection was increasing, but on account of the danger of transference of infectious diseases the pasteurization of milk supplies under official supervision was a necessity.

In the administrative section also the need of close cooperation on the part of the central health authority with local authorities was emphasized by F. E. Freemantle,* medical officer of health for Hertfordshire. He stated that—

In England and Wales the county councils at present, in the matter of health, are independent of the central department, and have no responsibility for supervising the sanitary work of the districts.

He advocated greater centralization of public health work and a mobile corps with which to carry it on.

The efforts of one municipality, Liverpool, to protect its infant citizens were outlined by Caton.† These include notification of all births, visits by female inspectors at homes of the poor, and furnishing food both to mothers and infants where necessary. The improved housing of the working classes for which Liverpool is noted was also mentioned as an important factor in the reduction of infant mortality in that city, and the teaching of primary school girls regarding home management, the details of the nursery, and feeding of infants was also adverted to.

The remarkable cooperation between a municipality, a babies' dispensary, and a university in work for the prevention of infant mortality was outlined by Gerstenberger, of Cleveland, Ohio. While this work is aimed primarily at improving the welfare of infants,

*F. E. Freemantle, "The Responsibility of the Central Authorities in the Matter of Infant and Child Hygiene."

†Richard Caton, M. D., "Municipalities and Infant Life."

he stated that it does not neglect the older children, who also receive attention from the visiting nurses.

Forsyth, of London,* pointed out the necessity for the medical inspection of infants and children under school age, and described the organization and operation of a medical inspection center in the city of Westminster by a voluntary health society. As stated, the essence of the scheme is to keep every child under medical supervision from the time of its birth until the end of its fifth year, and then to hand it over, sound and hearty, to the school authorities, together with the medical record of the material facts in its life up to that time. Promising results were reported, which suggested an extension of the work to the end that the problem of the defective child might be met in time to solve it.

In the medical section the infant mortality problem was approached from many angles. The necessity of special education in infant hygiene was specially emphasized by Drs. L. E. La Fétra, of New York, and C. Paget La Page, of Manchester. The broader education of midwives and doctors was also referred to by others as necessary for the protection of infant life.

In a striking and thoughtful address Dr. Caroline Hedger, of Chicago, outlined the relation of the education of the girl to infant mortality, and invited attention to the fact that few schools show constructive ideas on the conservation of the girls' reproductive life. She urged a wide study of the influences of school life on the developing reproductive systems of girls, and advocated such modification of the present methods of education as is necessary to meet the needs of the growing girl and the future mother.

The importance of antenatal hygiene was referred to by others, and Dr. J. W. Ballantyne, of Edinburgh, pointed out that help, financial or otherwise, to the poor mother is often as sorely needed before as after the birth of the child. Dr. Philip Van Ingen described the campaign of antenatal hygiene being carried on in New York, and Dr. J. M. Munro Kerr, of Glasgow, suggested the compulsory notification of pregnancy to local authorities and the establishment of centers where advice and attention could be given which would lessen the death rate from complications of pregnancy and parturition.

Finally, the problems of infant feeding were discussed, the advantages of modified and dried milks being outlined.

*David Forsyth, M. D., "The Medical Inspection of Infants and Children under School Age."

A final general session of the conference was held, during which the following resolutions were adopted:

1. That this conference urges that the maternity benefit be made the property of the mother both in practice and in law.

2. That the attention of the board of education be drawn to the extreme desirability of making the grant earned by "recognized" infant welfare centers depend in future on their efficiency, on the number of registered attendances of the mothers at consultations, classes, and talks, and on the number of home visits paid under adequate supervision.

3. That, in view of the damage liable to be wrought in growing girls by injudicious stress of education, especially during puberty and adolescence, this conference feels bound to deprecate any form of education for girls which pays insufficient attention to establishing good bodily health and development and complete fitness for maternity and the practical care of a home.

4. That this conference urges upon the Government the necessity, in the interests of both mother and child, of legislating for the registration of stillbirths.

5. That this conference urges upon the Government the necessity for the more complete medical certification of death, and that the medical death certificates should be forwarded to the registrars, as confidential documents under sealed cover.

6. That the time has arrived for steps to be taken with a view to securing the better training of women who apply for the certificate of the central midwives' board.

7. That this conference requests the executive committee to communicate with the general medical council and the degree and license conferring bodies with a view to infant hygiene being given a more important place in the medical curriculum.

8. In view of the large percentage of stillbirths and infant deaths directly attributable to venereal diseases and considering that infant blindness and other congenital defects are in many cases due to the same cause, the English-speaking conference on infant mortality urges the respective Governments of the countries therein represented each to appoint a commission to inquire into the prevalence, the causes, the provision of treatment, and the possibility of the prevention of these diseases.

9. That the executive committee be instructed to take whatever steps they may think desirable in order to insure a microscopical examination of milk, to be supported by analytical methods.

THE CHICAGO MEDICAL RECORDER

AND
JOURNAL OF THE MEDICO-LEGAL SOCIETY

EDITORIAL BOARD

DR. E. W. ANDREWS	DR. FRANKLIN H. MARTIN.
DR. FRANK T. ANDREWS.	DR. JOSEPH MATTESON.
DR. CHARLES C. BEERY.	DR. FREDERICK MENGE.
DR. R. W. BISHOP.	DR. THOS. J. WATKINS.
DR. JAMES BURRY.	DR. SAMUEL C. PLUMMER.
DR. HENRY T. BYFORD.	DR. ARTHUR R. REYNOLDS.
DR. FRANK CARY.	DR. HOMER M. THOMAS
DR. E. J. DOERING.	DR. H. H. FROTHINGHAM.
DR. JUNIUS C. HOAG.	DR. OTTO L. SCHMIDT.
DR. FRANK S. JOHNSON.	DR. D. A. K. STEELE.
DR. A. CHURCH.	

COMMITTEE ON PUBLICATION

E. J. DOERING	A. R. REYNOLDS	HENRY T. BYFORD
---------------	----------------	-----------------

Vol. XXXV. (No. 10.)	PUBLISHED MONTHLY. Pullman Building	SINGLE COPIES 20 CTS.
NEW SERIES.	Chicago, Ill., October 15, 1913.	\$1 A YEAR IN ADVANCE.

Editorial.

CITY GARBAGE.

Garbage disposal is one of the most perplexing city problems the world over. In American cities each new administration sets out to study the problem. Officials make visits around the country for the purpose of learning what is best to do. Chicago is no exception in this particular. It has been worked out in Chicago and a decision reached years ago, that what is known as the reduction plan was the only one for American garbage, as this is the only one that yields a product of value.

The value is obtained by securing the grease and fertilizing material. American garbage is rich in grease, especially in the cold weather. It has been frequently estimated that the by-products produced by the reduction plan will pay the expense of running the plant and sometimes more, depending upon the richness in grease and free-

dom from ashes, cinders and other material that yields nothing of value.

In spite of all this knowledge Chicago is still without a plant and we witness the city council voting to resume the old plan of dumping it in clay holes or other out-of-the-way places. Ten or fifteen years ago the city ordered citizens to provide two receptacles for household waste, one for pure garbage and another for ashes, and ordered that all combustible waste be burned on the premises by the householder. These provisions are in force now and fairly well carried out by the people, and all done with the intention then of using the reduction plan of ultimate disposal. At that time a reduction plant was erected and well equipped by a firm who found a handsome profit in collecting and reducing the rich garbage of hotels and restaurants. They also offered to take pure garbage to the limit of their plant and dispose of it free of cost to the city when delivered at the plant. This same plant or an extension of it is the one that the city has at last been trying to purchase, but a failure in the negotiations has prompted the council to resume the old and unscientific if not costly plan.

The city requires several of these reduction plants, located in different sections of the city so as to shorten the haul as much as possible. Each one should have sufficient grounds so that the unloading could be done under cover, and should have large tanks, similar to silo tanks on farms, where the garbage could be put and kept hermetically sealed in case of a surplus or a breakdown of the machinery. It is time now to secure at least one of these plants even at an excessive cost.

DEPARTMENT OF HEALTH.

There seems to be disposition to place the responsibility of garbage disposal on the Department of Health of Chicago.

The question of garbage disposal is no more a sanitary question than is the drainage of the city or its water supply. It is not doubted that the Department of Health would do the work well, but its function should be limited as far as possible to the purely medical work of preventing the contagious and infectious diseases and their treatment when necessary.

Instead of taking on new and diverting duties, it should be freed from the duty of inspection of premises and the inspection of plumbing and house drainage. These duties belong properly in the Department of Building. There is no more reason for the Department of Health to look after the cleansing of premises than the cleansing of streets.

There is a very large and inviting field in the prevention of ven-

ereal diseases, alcoholism, drug addiction, the birth of the unfit, child welfare, and even of poverty, now coming to public attention. The invasion of the new region demands medical skill and medical generalship to be successful.

It is a pity that health departments should be weighted down with administrative duties that can just as well be handled by other municipal agencies, while the newer fields and their tens of thousands of victims are crying for help.

TREATMENT OF DRUG HABITS.

Articles have appeared from time to time in the *Journal of the American Medical Association* and other publications from the pen of Dr. Alexander Lambert of New York, upon the successful treatment of narcotic addiction and alcoholism. The first of these articles appeared in September, 1909. All state positively that victims of the opium or morphine habit, and those with the cocaine habit, or those with the alcohol habit, can be relieved of all need or desire for the narcotic within three or four days. In May, 1911, Dr. Richard C. Cabot of Boston in an article in the *Boston Medical and Surgical Journal* confirmed all Dr. Lambert had claimed for the treatment.

The treatment pursued is that perfected by Mr. Charles B. Towns, who has been maintaining a hospital for the treatment of narcotic patients in New York City for thirteen years. Mr. Towns has not had the advantage of a medical education, but he knows all there is to know about the class of patients under discussion and is a clear-headed, positive and forceful man. Moreover, he is by nature thoroughly honest and hence thoroughly ethical. Mr. Towns labored for years to interest the medical profession in his successful treatment and admits he was sorely tempted by flattering suggestions to commercialize his treatment and establish hospitals all over the country. The publicity and recognition given his treatment by Dr. Lambert has forever removed that danger.

Under the patronage of some of the best medical men in Boston a hospital of the Towns' type has been successfully running in that city for three years, and there should be one so established in Chicago.

Mr. Towns does not use the word cure. Indeed, he says there is no cure for such addicts, as one can if he so desire take up any habit again after any or all forms of treatment. There is a large percentage of those enmeshed in slavish narcotic habits who have become so by accident and earnestly desire to be rid of their craving.

To all of this class the Towns' treatment comes as a blessing that enables them to take their places again in the ranks of the producers and become upstanding men and women.

SEX HYGIENE IN SCHOOLS.

At the meeting of the Chicago Medical Society held October 1st the subject under discussion was "The Teaching of Sex Hygiene in the Public Schools." Several non-medical speakers addressed the meeting, among them the Superintendent of the Chicago Public Schools. Mrs. Young said she hoped for the best results in the schools, but she evidently shares the general feeling of uncertainty about it. At the same time, it was evident she intended to go bravely forward on the unknown and uncertain road. The Rev. J. W. Melody was outspoken in his opposition. He believed the instruction in such matters should be by the parents and the priest. Others speakers were in favor of school instruction, some only mildly so.

The question is one of great delicacy, but it is under public discussion in every civilized country and must be met by courage and intelligence. The first step naturally is the instruction and education of the young so that they may know all the grave dangers that are associated with the illicit and indiscriminate relations of the sexes. There is no doubt that proper and scientific information will help to control and subdue youthful impulses.

There is no tendency anywhere to underestimate the value of religious teaching in such matters, but, unfortunately, religious teachings do not reach all the young, and parents are notoriously negligent in speaking of sexual blessings, sexual dangers, or sexual diseases to their children. Indeed, it can safely be said that most parents are totally incompetent to do so.

Recent public discussions of sexual questions and sexual diseases reveal the fact that much can be said on the subject that is illuminating and useful without in any way being suggestive.

It can safely be said that city-bred children as a rule have gained a large amount of information on the sexual question before they are in their teens, and that these quiet conferences among themselves are of the most suggestive nature and tend toward indecent and harmful practices of one kind or another. The problem then is adroitly to impart to the child useful and helpful information on the all-important question.

Wherever this useful work is undertaken, whether by the church,

the parents, or in the public schools, it should have the earnest sympathy and the aggressive aid of the medical profession and of medical societies.

PREPARING FOR WAR.

No nation is ever fully prepared for war and among the great nations of the earth none is so poorly prepared for war as the United States of America, except in her isolated situation and the high average of intelligence of her people.

There are many things to be considered in estimating a nation's preparedness for war. One is the number and kind of weapons of warfare, the munitions of war and the provisioning of an army. Another feature is the money to pay the cost, and another is the number of available men and their skill in the manual of arms and the tactics of war. These conditions are frequently discussed and remedies urged by the military authorities at Washington. The remedy advocated is a larger standing army, an increase of the national guard, and the training of an increased number of young men in the profession of arms.

It may not be amiss to urge that greater emphasis be given to the things that modern sanitation has taught to be wise for the soldier to know, in order that he may be able to defend himself when on the field or in the camp from foes more disastrous to his efficiency and his life than are the bullets of the enemy. Most of this necessary information can better be gained in the home or the schoolroom than in a military camp.

Every boy should be made sufficiently familiar with the use of a needle and thread that he may keep his own clothing in repair. Every boy should be taught how to wash his own clothing and how to prepare a place to sleep in reasonable comfort on the ground and in the open. Every boy should know how to make bread, to prepare and cook poultry, meats, and especially vegetables. He should be taught not to drink any uncooked water or milk except he know both to be pure. Every boy should be vaccinated against smallpox and against typhoid fever, and should know that no water from surface wells, streams or lakes where large numbers of men are camped can long remain pure.

A regiment of men equipped with this means of personal defense and with a desire in the mind of each soldier to protect his physical

welfare, can be of great service in the field even though they know nothing of battalion drill or the use of fire arms. We do not underestimate the value and the need of military drill, but in this day and age every soldier should be so well informed that his health will be as good in the field as at home.

SAN FRANCISCO IN 1915.

A member of the editorial staff of the *RECORDER*, now in San Francisco, expresses his admiration of the progressive spirit and the wonderful progress of this city since the earthquake, and the preparations which are being made for the World's Fair in 1915.

As a sign of the times and as an encouragement to our own administration, we take pleasure in reprinting the following editorial from the *San Francisco Examiner* of September 12, 1913.

MAKE SAN FRANCISCO CLEAN CITY FOR CLEAN PEOPLE.

In this city the toleration of commercialized vice, under police regulation, has been the policy of each succeeding administration, and that policy has always been defended upon the ground that San Francisco is distinctly a pleasure city, and that its customs and traditions should not suddenly be uprooted after having been for so many years native to the soil.

Now, it is very true that San Francisco is a pleasure city, and properly so, for certainly nature, in her sunniest and sprightliest mood, marked here the boundaries, and here ornamented with every gift of beauty the site of a playground fitted to charm the eye and delight the heart of all the world.

Here is a milder than Italy's climate; here skies of more than Grecian loveliness arch above a panorama of hill and bay which is not surpassed in magnificence, in splendor, in beauty or in charm by the noblest of the handiworks of the Creative Intelligences. And to all this grace and charm of nature's setting, a cosmopolitan and light-hearted people have added the ornaments and embellishments of civilized life. Assuredly, San Francisco is a city appointed for pleasure, for fun-making, for vivid enjoyment, and assuredly a pleasure city it should always remain.

But the fundamental error in the attitude of our public servants has always been and is now the assumption that pleasure means indulgence in dissipation and debauchery; that entertainment means visiting vile slums; that amusement is to be found in dives and amid the sordid and shameful surroundings of commercialized vice.

Upon this wrong and indefensible hypothesis is based the toleration of the Barbary Coast and the existence of the segregated redlight district. Upon this hypothesis is excused the presence of that web of low debauchery in which degraded women and more degraded men play the spider's part and drain the poor entangled human flies of money, of self-respect, of decency and of health.

It is a wrong hypothesis and the time has arrived when in sheer necessary defense of the city's good name, of the common welfare and of the common prosperity, we must forsake this point of view and set about the task of making San Francisco the right kind of playground for the right kind of people.

In the first place we should thoroughly realize that a great change has come over the thoughts and actions of men and women throughout the civilized world, and that this change continues to do its work with constantly accelerated rapidity; and that the community—not less certainly than the individual—that opposes resistance to this change will surely be hurt by the collision.

The fashions and manners of ten years ago are as much out of harmony with the world's mental attitude today as the manners and fashions of 1903 were out of harmony with those of two hundred years before. No city can afford to lag behind, much less to resist, the steady forward and upward march of the times.

In the great and splendid cities of the East—in New York, in Chicago, for examples—the old theories of the necessity of the social evil, and the impossibility of abolishing public immorality, have given place to stringent legislation. And all over the land there has suddenly, and as it were with one accord, sprung up a determination to do away with the open pursuit of their infamous callings by the procurer and the inmates of the houses of ill-repute.

This determination is widely evidenced by a mass of legislation bearing directly upon the bad environments which have provided the hunting grounds of human tigers. The minimum wage law, for instance, was not enacted to provide working girls with more money to spend for finery and amusement. It was enacted to make it possible for a working girl to earn a comfortable living by work, without enforced resort to auxiliary and shameful means of keeping soul and body together.

Now, this widespread change in public opinion and public manners, this new concern for the beaten and wounded who have fallen in the battles of life, this finer and sweeter charity and this commoner respect for the decencies and moralities constitute a great force with which those who have the government and conduct of cities in their hands must seriously reckon. It is a force which cannot be defied and a force which ought to be welcomed and turned to powerful and profitable advantage.

It may be set down as a certain truth that from this time on only those cities will greatly prosper which ally themselves heart and soul with the new order and the better conscience of the age in which we live.

With this new order, with this better conscience, the Barbary Coast and all its institutions, customs and traditions of open and flagrant vice and debauchery are at war, and they must go, to make way for sane and healthy and sweet and charming pleasures and amusements; for entertainment in which decent women can join decent men; for resorts in which merriment is without meanness, eating and drinking are without debauchery, dancing is without disgusting vulgarity and mirth and fun are as clean as they are delightful.

No one possessed of common sense desires to see San Francisco a

city painfully good, chemically purified or puritanically reconstructed, with public resorts closed at midnight, or with sad Sabbaths succeeding to a routine of dull work days. Assuredly that is not this journal's conception of what San Francisco should be.

But most earnestly and hopefully do we desire to see here the gayest and brightest and cleanest and most inviting and most famous pleasure city between the two seas that belt the Republic.

Considering this problem from the viewpoint of trade and money returns, it should not be forgotten that a city of clean amusements alone attracts clean people, and that the clean people are in the great majority in this country and are the people who have money to spend for legitimate purposes. And, on the other hand, it is only the unclean who are attracted to visit a city by unclean amusements, and the less visitors of that sort San Francisco or any other city has the better it is off in morals, in money values and in reputation abroad.

Now, we cannot possibly have a city largely attractive to clean people and to unclean people, and the question is therefore squarely up to us whether we shall make San Francisco inviting to this class or that; whether we wish to have the great, decent majority of our countrymen and countrywomen turn their feet toward our gates, when the spirit of travel and of play moves them, or whether we prefer to set lures for the baser sort in the traps of the Barbary Coast and the dives where lewd women and unspeakable men lie in wait for prey.

No man can serve two masters, or follow at the same time good and evil courses. Nor can any city be clean and unclean. And in an age when cleanness is triumphing over dirt as it never before has triumphed, and when sane and wholesome pleasures appeal to millions as they never before appealed, it is the depth of folly to make the pleasures of a city obnoxious to the decent and the clean.

The social evil has existed since men first came together in organized societies, and it is possible that we may not be able wholly to eradicate it immediately. But we can eradicate the open display of the thing; we can shut up the public market of vice. We can make the public streets clean from one end of the city to the other.

We can keep indecent sights and vulgar suggestion from the eyes of women and the ears of the young. And we can most effectively abate the activities and the profits of those hyenas who make carrion for their obscene appetites and vile feasts of the bodies and souls of unhappy girls. We can save to wifehood and motherhood hundreds of children who else were doomed to go down the swift road to the nether hells. This much we can do, and a noble and useful end it is to which to address public and private endeavor.

That commercialized vice is a necessary evil is a frequent argument. But if it ever was an argument founded on truth it is not today. The economic legislation to which reference has been made is based on the sound theory that the "necessity" of the social evil to men will disappear when the necessity of food and clothing and shelter no longer drives women to shameful ways of earning money. When, in the fullness of time and change, every girl and woman can earn a comfortable livelihood, with reasonable hours of work and play, the "necessity" of

the social evil will go to join the ghosts of other cruel excuses for man's inhumanity to his sister woman. And the time when every woman can so support herself by the wages of honest work is very near at hand, if we mistake not the temper and purpose of the public mind.

Such, then, is the spirit of the age, such the conditions of the times, such the trend of universal thought, with which we should put our city in harmony, and to this end we must lend a powerful, persistent, loyal support to the authorities when they begin to battle with the forces of the underworld and their allies in the upper world.

For the public servant beginning to carry out the will of the good men and women of this city will be beset with every weapon of cajolery and persuasion and intimidation and attack which unscrupulous and desperate villainy can find in its armory.

He will risk assassination of character; vile allegations to which coached scoundrels will vouch with skillful perjury, prepared by hired lawyers and countenanced by suborned magistrates. He will risk organized attack at the polls and the defeat of his honest ambitions. And his only hope of escape from these ambushes and assaults will lie in the steadfast, loyal support of the decent men and women of the community.

Now, this is a great deal to ask of our public servants. It is asking them to risk more than most of us would dare to risk. Yet if they are brave enough and far-sighted enough to perform this duty, to dare this risk, to defy this organized villainy, their reward will come in a great public gratitude and a great public esteem when a few years of municipal cleanliness have resulted in the prosperity and happiness of their city.

Friends, let us bend our utmost efforts to the present and right solution of this grave problem. Let us resolve—both public officials and private citizens—that we will abolish these open dens of debauchery and crime, which make profit for no one but procurers, thieves and the baser parasites of society, and so put an end once for all, to the sights and sounds with which the eyes and ears of respectable visitors and respectable home folk are shamed and disgusted.

Let us resolve that we will make this city so clean, so inviting, so full of constant entertainment and of wholesome sport and fun that thousands upon thousands of visitors will crowd to play in it.

Let us build here, at the farthest output of the Republic, the most brilliant, the most charming, the most gracious, the most artistic and the loveliest city in America.

Let us strive to win for San Francisco the renown of a great pleasure city, wherein gayety abounds without vulgarity, and day and night are a carnival of fun and play in which clean men and clean women can join at all hours.

Let us trade vulgar vice for decent entertainment; filthy dens for beautiful resorts; the Barbary Coast for palaces of light and music in which man and maid can eat and drink and dance and find entertainment without shame and without ill report.

In order to build this City Charming we must first clear the ground of the rubbish which now occupies it. We must raze the dens and dives. We must make the Barbary Coast a memory. We must make commercialized vice a tradition of the past.

This work of necessary destruction your public servants can do. Whether they will do it or not depends upon you men and women. If you make your will unmistakably evident, and back up your urgency with the firm promise of support against evil attacks, your mayor and your supervisors will find the courage and the means to put an end to commercialized vice, and to show the visiting world, when it comes to your great fair, the spectacle of a gay, charming and clean city, the most inviting and the most lovely, the most prosperous and the most desirable of all the desirable and lovely and inviting cities which dot the floor of this continent. But this program includes work and fighting, faith and valor, and determination which stops at no obstacle and will have nothing but victory.

It is in the firm belief and fixed confidence that the great majority of you citizens have this fighting valor and this indomitable determination, that "The Examiner" now makes this appeal to you to begin a victorious battle with vice and vulgarity, and to inaugurate, here and now, a bright and beautiful era in the history of this city, which is your home and your heart's dear pride and delight.

Medico-Legal.

MEDICAL LAW.

A woman who called a physician and requested him to attend her daughter, who was seriously ill, and who was married and living with her husband, is not, in the absence of any express agreement to pay the physician for his services, legally liable therefor.

GRAY, J.—This action was brought to recover the reasonable value of services rendered by the plaintiff as a physician, at the request of the defendant, to the latter's daughter, a married woman living with her husband. The plaintiff was non-suited at the trial, which was had in the City Court of the City of New York, and the judgment entered in favor of the defendant dismissing the complaint has been affirmed by the Appellate Term and by the Appellate Division of the Supreme Court. Leave was then given to the plaintiff to further appeal to this court.

The plaintiff did not allege nor does he pretend that there was any express promise by the defendant to pay him for his services, but relies upon the facts as raising an implied agreement on her part to do so. These facts, taking them as we should, in their most favorable light upon the plaintiff's case, show that on November 1 the defendant called the plaintiff upon the telephone, informed him that her daughter was seriously ill and asked him to see her. He told her that he "could not go without the consent of the daughter's husband." Sub-

sequently, on November 12, the plaintiff had an interview at his office with the defendant and her son-in-law, Mr. Bradley. The defendant introduced her son-in-law, and in his presence asked him if he would go up and see her daughter. Plaintiff said he was satisfied to go. To quote his testimony with respect to that interview, he said, "that the introduction of Mr. Bradley by Mrs. Hughes was giving the consent to my going to see his wife." He had no conversation with Mr. Bradley, who thereupon left. Plaintiff then went with the defendant and made an examination of the patient, as the result of which he informed Mrs. Hughes that he would like to withdraw from the case because of the particularly grave condition of her daughter. To this she replied by appealing to him to stay in the case, saying, "Doctor, you have been my friend; you have attended my family; you have attended my husband and our children, and I beg of you, for God's sake, don't desert Maude." (Maude being the name of the patient.) The plaintiff had been the defendant's family physician, but he had never attended the Bradleys. He continued in attendance upon the patient, rendering professional services until some time in January, when she died. Nothing appears to have been said at any time with reference to the payment for plaintiff's services.

The only question upon this appeal is whether the defendant came under any obligation to the plaintiff. That turns upon whether the law will imply a promise on her part to compensate him. If we might assume the existence of a moral obligation, that would not determine that a legal or enforceable obligation existed. The rule in the United States has generally been that a physician is entitled to recover for his services, if not under an express contract thereof, then under an implied agreement to pay *quantum meruit*, differing in earlier times from the rule at common law, which, in England, before the passage of the Medical Act of 1858, in the absence of a special agreement, denied to the physician the right to sue for his professional services, the theory of any payment to him being that of an honorarium (*Gibbon v. Budd*, 2 H. & C., 92; *Battersby v. Lawrence*, Cr. & M., 277). The general rule that where a person requests of another the performances of services, which are performed, the law implies a promise by the former to pay their reasonable value, has no application in the case of a physician rendering professional services to a third person if the relation to the patient of the person who requests them be not such as imports the legal obligation to provide them. The courts below have followed the authority of *Crane v. Baudouine* (55 N. Y., 256), though there was a division in opinion

at the Appellate Division as to its application. I think that it has been correctly held to be decisive of the question before us. In that case the plaintiff, a physician, was called in to attend the daughter of the defendant, who was lying ill at the latter's home. She was of age, married and living with her husband, and had been brought there at her mother's request. There being no proof of any express promise to pay the plaintiff for his services the question of a promise to be implied from the facts was considered by Judge Folger, who spoke for the court. He observed that "the relations between the defendant and her (his daughter) were not such as that there was upon him such obligation. She was much past her majority; * * * she had lived with her husband and their children, separately from her father, in a house of their own; she was at the time living with her husband and their children. Her husband was bound primarily to supply for her all that she needed. * * * The interest exhibited in the case by the defendant to the plaintiff; * * * his presence when the plaintiff made his professional calls, alone and in consultation; * * * his receiving directions as to treatment; * * * are relied upon as circumstances making a basis for an implication" (p. 259). He held that "so far as legal responsibility was concerned, the defendant, though the father of the patient, was a stranger to her and to her necessities." There was a question upon the evidence, whether the defendant had, in fact, sent for the plaintiff, and it was said that "even had he gone himself and requested the plaintiff to come, we have seen above that the law will not therefrom raise an implied promise to pay for the services." It was reasoned that, while a person may not avail himself of the benefit of services done for him "without coming into an obligation to reward them with a reasonable recompense," he cannot be said, "in the meaning of the law, to avail himself of services as so done, when they are not for his individual benefit, nor for that of any one for whom he is bound to furnish them." The court, in *Crane v. Baudouine*, applied the doctrine of the cases of *Veitch v. Russell* (3 Ad. & Ell., N. S., 927) and of *Boyd v. Sappington* (4 Watts., Pa., 247), that the fact of a request to a physician to attend a patient is not alone sufficient for the inference of an agreement to pay for the services rendered. The doctrine which *Crane v. Baudouine* adopted has influenced the decisions of the courts of other states. (See *Smith v. Watson* (14 Vt., 332), *Raoul v. Newman* (59 Ga., 408), *Meisenbach v. Southern Cooperage Co.* (45 Mo. App., 232), *Dorion v. Jacobson* (113 Ill. App., 563). the two latter cases citing *Crane v. Baudouine*, and the case

was followed by the Appellate Division in *Voorhees v. N. Y. C. & H. R. R. R.* (129 App. Div., 780), and in *Van Gaasbeek v. U. S. Lace Curtain Mills* (132 ib., 595).

I am therefore of the opinion that it should be taken as the rule of law, too well settled upon authority to be now questioned, that a physician, in the absence of a special contract, may recover upon an implied agreement to pay for his services *quantum meruit*, when they have been rendered at the request of the patient, or a person who, in the eye of the law, is regarded as being under a legal obligation to provide such professional services for the patient, such as a husband or the parent of a minor child. In the present case, notwithstanding the anxiety, the importunity and the prayers of the defendant, how was the legal obligation of the husband shifted to, or assumed by, the defendant? According to the plaintiff's testimony he refused to attend the patient until the husband had consented; which may be said to be a recognition at least of the marital relation, with its consequent responsibility or liability. It certainly followed that, when the husband's consent was given, an obligation arose on his part to pay the reasonable value of the services which the plaintiff might render. As there was no promise by the defendant to pay, can we hold that, upon the facts disclosed by the plaintiff's evidence, there was also an implied promise on her part? It would be a simple matter in cases where the physician is called upon to attend a patient at the instance of some one not standing in a responsible relation to the patient to inform himself as to whom he shall look for his compensation.

For these reasons I advise that the order of the Appellate Division be affirmed.

Cullen, Ch. J., Willard Bartlett, Chase, Cuddeback and Hogan, JJ., concur; Miller, J., not sitting.

Order affirmed with costs.

Edward J. Connolly for appellant; Charles Strauss for respondent.

STERILIZATION BY VASECTOMY.

On the theory that modern scientific investigation shows that idiocy, insanity, imbecility, and criminality are congenital and hereditary, several states (vide, Washington, California, Connecticut, Indiana and Iowa) have recently enacted laws providing for the sterilization of insane habitual criminals, etc. In the enforcement of these statutes vasectomy seems to be a common operation. The constitu-

tionality of the Washington statute has been lately passed upon in the case of *State v. Feilen*, 126 Pacific Reporter, 75. Defendant was convicted of statutory rape committed upon a female child under the age of 10 years, and sentenced to imprisonment for life, and that an operation be performed upon him for the prevention of procreation. The question presented for the Supreme Court's consideration is whether such an operation must be judicially declared a "cruel punishment" forbidden by the Constitution. To begin with, what is "cruel punishment"? In looking back, the history of our law tells us of the terrible punishment visited by the ancient law upon convict criminals which to our days of advanced Christianity are both shocking and heartrending. In reviewing those horrible and barbarous inflictions, we are reminded of such punishment as that inflicted by the whipping post, the pillory, burning at the stake, breaking on the wheel, drawing and quartering, cutting off the nose, ears, or limbs, or strangling to death. Such were the "cruel and unusual punishments" which disgraced the civilization of the early ages. Is history repeating itself in this new and modern infliction—vasectomy? Vasectomy is an operation painlessly performed in a few minutes, under an anesthetic, through a skin cut half an inch long and entailing no wound infection, no confinement to bed. As said by one expert, "It is less serious than the extraction of a tooth." Another expert states that he performs it without even administering an anesthetic; that it requires but about three minutes, and that the subject returns to work immediately, suffers no inconvenience, and is effectively sterilized. In view of these facts, the court says that it "cannot hold that vasectomy is such a cruel punishment as cannot be inflicted upon appellant for the horrible and brutal crime of which he has been convicted." The statute is held constitutional and the judgment affirmed.

DOCTOR NEED NOT CURE.

The facts in the case of *Hall v. Mooring*, 76 Southeastern Reporter, 759, are substantially as follows, as stated by the Court of Appeals of Georgia: This was a contest between two members of the gentler sex. Plaintiff was a practitioner of the art or science of osteopathy, and the defendant either needed, or thought she did (which is the same thing), the services of the plaintiff. Several visits were made, at \$3.10 per visit; the ten cents being added for street-car fare, and the whole bill amounted to \$27.90. Defendant claims that the bill includes charges for a number of social calls, and that the

services rendered by the doctor gave her no relief and were so unsatisfactory that she was forced to resort to a physician of the allopathic school, who administered pills and mixtures in the good old-fashioned way. On the issues of fact the plaintiff outswore the defendant, or at least the jury in the justice's court thought she did, and the judge of the Superior Court refused to interfere. The court says: "It would never do to hold that a doctor is entitled to recover only where he cures the patient. * * * So far as we are concerned the doctors may continue to bury their mistakes and recover for their services as they have always done. If we were dealing with lawyers the rule might be different, but sufficient unto the day is the evil thereof. * * *" It appears from the record that the trial waxed warm, and during the testimony of the defendant the plaintiff became excited and exclaimed, "Liar! liar liar!" and while the defendant's counsel was endeavoring to persuade the jury to accept his client's theory of the case the plaintiff did at intervals "yell out in court that the defendant was a liar and had lied." It is complained that this conduct of plaintiff prejudiced the jury against the defendant, and that the verdict ought to be set aside because the magistrate failed to punish the plaintiff for contempt. The court answers: "Doubtless the conduct of the plaintiff overawed the chivalrous young justice and embarrassed him quite as much as it did the defendant, and we are not disposed to criticise too harshly his exhibition of judicial timidity. At any rate, the failure of the magistrate to punish the contumelious plaintiff must be allowed to rest upon his judicial conscience. If we had any means of knowing that the plaintiff's conduct terrorized the jury and coerced the verdict in her favor, we would, in the interest of a fair and impartial trial, direct another hearing. But the jury doubtless felt secure under the protection of the bailiff and the sacred precincts of the courtroom, and, if they had returned a verdict adverse to the plaintiff, there was, no doubt, some rear door through which they might have dispersed, and thus have escaped violence at the hands of a litigant outraged at the injustice which had been meted out to her. Viewing the matter from this safe distance, we are inclined to think that the unseemly conduct of the plaintiff would more likely have prejudiced her own cause than it did the defendant's." Judgment for plaintiff is affirmed.

Book Reviews

THE PRINCIPLES AND PRACTICE OF GYNECOLOGY. FOR STUDENTS AND PRACTITIONERS. By E. C. Dudley, A. M., M. D., Professor of Gynecology in the Northwestern University Medical School, Chicago. Sixth Edition, thoroughly revised. Octavo, 795 pages, with 439 illustrations, of which many are in colors, and 24 full page plates. Cloth, \$5.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1913.

Dudley's Gynecology needs no better recommendation than that it has passed into a sixth edition, and thus has been stamped with the approval of the profession at large. The treatise was built up piece by piece by a conscientious workman and the same conscientious work has been displayed in the additions and alterations that have been made. As a consequence it possesses a reliability that is not always found in similar works. The chapters on General Principles, Inflammation, Tumors and Traumatism have been entirely rewritten.

But it is in the operative detail that the book excels. In it the author's mechanical genius and mastery of detail are brought out in high relief. No pains have been spared either in the text or in the illustrations to teach just how each operation should be done, particularly the plastic operations which constitute such an important part of gynecology. The arrangement of the subjects in pathologic and etiologic sequence is a distinct advantage over the old anatomic arrangement, and makes it more interesting and convenient both as a textbook for the student and a book of reference for the practitioner. The publishers are to be congratulated upon the high class of work they have put into the volume.

We heartily recommend it to the general practitioner and young operator with the assurance that they cannot begin better than by following its teachings.

HENRY T. BYFORD.

DIAGNOSIS OF THE MALIGNANT TUMORS OF THE ABDOMINAL VISCERA.

By Professor Rudolph Schmidt, Professor of Medicine in the University of Innsbruck. Authorized English Version by Joseph Burke, Sc. D., M. D., Attending Surgeon, Buffalo Hospital of the Sisters of Charity, Consulting Surgeon, Emergency Hospital, Buffalo, N. Y. New York: Rebman Company. Price, \$4.00.

We are certainly indebted to Dr. Joseph Burke in translating this splendid work of Prof. Rudolph Schmidt into English. It is a most valuable contribution to our knowledge of the early diagnosis of ma-

lignant growths in the abdomen. The only hope at present for the patient exists in early and accurate diagnosis, in order to make a life-saving operation possible. It is undoubtedly the most trying problem in medicine and the great experience of the talented author herein set forth will help to make this thorny path easier to the physician.

Serum reactions, such as Brieger's anti-trypsin determination, Pfeiffer's anaphylaxis test, Ascoli's mejostagmin reaction, and Crile's isolysin, have been omitted from this work as the author considers them only of theoretical interest. The general part of this book embraces the physical examination, symptomatology, etiology and prophylaxis of malignant tumors. The special part deals separately of cancer of the stomach, intestines, liver, gall bladder, pancreas, and malignant tumors of the kidney. Then follow several hundred case histories, of great value, giving in brief besides previous history, objective symptomatology, dates of events and duration of disease, and the findings at autopsy or laparotomy.

This book surely deserves a prominent place in the library of every physician and surgeon.

STUDIES CONCERNING GLYCOSURIA AND DIABETES. By Frederick M. Allen, A. B., M. D. Boston: W. M. Leonard, Publisher, 1913. Price, \$9.00, express prepaid.

This is a painstaking and classical study of Glycosuria and Diabetes, the best and most thorough research work on the subject in the English language. It represents three years of hard work in the Laboratory of Preventive Medicine and Hygiene of Harvard Medical School, and must be read to be appreciated.

The key note of this splendid work of some 1,200 pages is found in the following quotation from the author: "The purpose from the outset was an improved therapy of diabetes. To this end, it was necessary to seek information concerning the physiology of sugar and the origin and nature of diabetes, to produce a satisfactory reproduction of human diabetes in laboratory animals, and to try various methods for modifying the disease thus produced. It is believed that the cure of diabetes is now a feasible experimental problem." And again from the summary we quote: "The average case of human diabetes is presumed to be the following: nervous disorder—impaired function of the islands of Langerhans—deficiency of pancreatic amboceptor—glycosuria and other symptoms. The functional character of the pancreatic disturbance in many or most cases of human diabetes is worthy of all emphasis; for if it is once established, the existing hopelessness regarding this disease is gone forever."

We certainly trust that the talented author will continue his brilliant studies to that end and become a benefactor to the human race.

SEXUAL IMPOTENCE. A Practical Treatise on the Causes, Symptoms, and Treatment of Sexual Impotence and Other Sexual Disorders in Men and Women. By William J. Robinson, M. D. New York: Critic and Guide Company, 12 Mt. Morris Park West. Price, \$3.00.

One of the few sensible books written on the subject, which does not make it a business to cater to the salaciousness which characterizes most of them. This book is eminently practical and instructive, and the treatment recommended throughout is up to date and effective. This edition has been revised and enlarged, and the only suggestion we have to make is to curtail the detailed report of cases. The general symptoms of these various cases grouped together will be more instructive than a separate report of each case, will condense the book and add to its usefulness. Take, for instance, Case IV, page 259. It proves nothing, and exceptional cases are of little value anyway. If this particular patient had been put to hard work and constant mental occupation, and given one of the author's bromide mixtures, she would have been promptly cured. We also desire to enter an emphatic protest against the statement that there is nothing vicious or degrading in masturbation, used by adults in moderation. It is most objectionable and degrading from any standpoint, unsanitary, uncleanly and unhealthy, and a penitentiary sentence for a few years at hard labor would be more than beneficial to Dr. Steckel, and clear up his mentality to a wonderful degree.

OBSTETRICS. A Manual for Students and Practitioners. By W. P. Manton, M. D., Professor of Obstetrics and Clinical Gynecology, Detroit College of Medicine, Detroit, Mich. Second edition, revised and enlarged; including selected list of State Board Examination Questions; 12mo, 292 pages, with 97 engravings. Cloth, \$1.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1913.

While not enthusiastic as a rule over compendiums, we must confess that this one is an exception to the rule in managing to give

the essentials of obstetrics in a very efficient way, with a series of questions at the end of each chapter which are really valuable and bound to impress the student with the need of thoroughness in reading. The illustrations are good and the general arrangement of the subject admirable. So for students preparing for examinations, for general practitioners who want to refresh their memory or have an idea of the latest investigations perhaps not covered in their larger but older text-books, we think this compendium will meet their requirements. A valuable addition to the book is a selected list of questions usually asked at state board examinations, with the page numbers given where the answers may be found.

THE DOCTOR IN COURT. By Edwin Valentine Mitchell, LL. B., of the Massachusetts Bar. New York: Rebman Company. Price, \$1.00.

It is absolutely necessary that every practicing physician should have some general knowledge as to the laws or legal practices relating to his profession. This little book meets all these requirements, and in a readable, conversational way imparts "a knowledge of a physician's duties and legal obligations that help him to foresee and forestall unpleasant eventualities likely to grow out of his relations with his patients." It covers professional evidence, contract of the profession, civil responsibilities, remuneration, confidential communications, criminal responsibility, etc. Every medical man should have a copy of this or similar work in his possession.

DIGEST OF COMMENTS ON THE PHARMACOPOEIA OF THE UNITED STATES OF AMERICA (Eighth Decennial Revision) and on the **National Formulary** (Third Edition). For the Calendar Year Ending December 31, 1911. By Murray Galt Motter and Martin I. Wilbert. Washington: Government Printing Office, 1913.

A most valuable aid to all those who use the U. S. Pharmacopoeia and National Formulary. The investigations conducted by this service will result in dropping the vast number of obsolete preparations which still appear in the Pharmacopoeia, establish the value of the efficient ones, and will tend to a limited materia medica with greater simplicity and usefulness.

The thanks of the profession are due to the Hygienic Laboratory of the U. S. Public Health Service. On the Advisory Board we note besides the director, Surgeon Jno. F. Anderson of the U. S. Public Health Service, the names of Profs. Wm. H. Welch, Simon Flexner, Victor C. Vaughan, Wm. T. Sedgwick and Frank F. Westbrook. Lieut.-

Col. McCaw and Medical Inspector Still represent the army and navy respectively.

A letter addressed to Surgeon-General Rupert Blue, U. S. Public Health Service, will secure a copy of this work, while the supply lasts.

A MANUAL OF OTOTOLOGY. By Gorham Bacon, A. M., M. D., Professor of Otology in the College of Physicians and Surgeons, Columbia University, New York. New (6th) edition, thoroughly revised; 12 mo, 536 pages, with 164 engravings and 12 plates. Cloth, \$2.25, net. Lea & Febiger, Philadelphia and New York, 1913.

The one subject which every general practitioner knows least about is the ear. The least satisfactory treatment of any organ we know about is the ear. Is it therefore not about time to pay more attention to this most important organ and do our duty in acquiring sufficient information and skill to give at least some treatment which may prevent the various impairments to hearing and other disastrous complications. We can not all be ear specialists but such a book as Prof. Bacon's will teach us enough to treat ear cases intelligently. It is just sufficiently large to make its reading a pleasure, as the call for a sixth edition abundantly proves. The present edition has been thoroughly revised, some articles rewritten, and the book brought up to date. We earnestly commend it to both students and general practitioners.

AN INTRODUCTION TO THE STUDY OF INFECTION AND IMMUNITY. Including Serum Therapy, Vaccine Therapy, Chemotherapy and Serum Diagnosis. By Charles E. Simon, M. D., Professor of Clinical Pathology and Experimental Medicine, College of Physicians and Surgeons, Baltimore. New (2d) Edition, thoroughly revised. Octavo, 325 pages; illustrated. Cloth, \$3.25, net. Lea & Febiger, Publishers, Philadelphia and New York, 1913.

The fact that a new edition of Simon's book has been called for in so short a time shows the widespread demand there was throughout the profession for further information upon this new and important subject. The whole field is of such recent development, advancing so rapidly from theory to a state of scientific exactness and practical application in both laboratory and clinical medicine, that it found the profession generally in a condition of vagueness as to what was really known and to what extent it affected their daily work.

It is evident that this book fulfilled its mission and made clear such subjects as bacterial poisons, the defensive forces of the micro-organisms, antigens and antibodies, the different types of immunity,

active and passive immunization, chemotherapy, and finally the application of immunological principles to diagnosis.

In this edition Dr. Simon has not only given the entire subject very careful review but he has brought into the body of the work all the advances and discoveries of the past year. The extent of these is shown by new sections upon auto and normal serum therapy, the chemotherapy of pneumococcus infections, cancer, and the serum diagnosis of pregnancy. We can recommend this book as one of the clearest and most concise expressions we have seen upon this all-important subject.

PROGRESSIVE MEDICINE. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D. Assisted by Leighton F. Appleman, M. D. Volume XV. No. 3. September 1, 1913. Philadelphia: Lea & Febiger. Price, \$6 per annum.

This number is one of the most important of the year. It includes "Diseases of the Thorax and Its Viscera Including Heart, Lungs and Blood Vessels," by William Ewart; "Dermatology and Syphilis," by William S. Gottheil, a most complete review, giving among other points a record of that rather rare infection human sporotrichosis; "Obstetrics," by Edward P. Davis, including the diagnosis of pregnancy, labor and its complications, obstetric surgery and the new born. The section upon "Diseases of the Nervous System," by William G. Spiller, has been divided into diseases of the brain, diseases of the spinal cord, and miscellaneous nervous diseases, and should be thoroughly read by any one who wishes to grasp the important advances that are being made everywhere within the domain of this great subject. One of the noteworthy features of this number is a 65-page résumé of the late work upon pulmonary tuberculosis, one of the most thorough and scholarly we have seen. A unique feature is a consideration of "Death by Electric Currents and by Lightning," based upon A. J. Jex-Blake's Goulstonian Lectures.

These subjects are all made quickly available by a full index, and certainly the service rendered the profession of medicine by this great publication cannot be over-estimated.

MINOR AND OPERATIVE SURGERY, INCLUDING BANDAGING. By Henry R. Wharton, M. D., Professor of Clinical Surgery in the Woman's Medical College, Philadelphia. New (eighth) edition, enlarged and thoroughly revised; 12mo, 700 pages, with 570 illustrations.

Cloth, \$3.00, net. Lea & Febiger, Philadelphia and New York, 1913.

Nothing the reviewer can say will add or detract from the reputation earned by Dr. Wharton's book upon minor and operative surgery. The eighth edition brings the volume fully up to date in the different sections upon fractures, dislocations, asepsis and antisepsis, minor and operative surgery. The student and practitioner can have no more trusted companion and counselor now, as it has been for many years past, than Wharton's Surgery.

THE DISEASES OF CHILDREN. By Henry Enos Tuley, M. D., Late Professor of Obstetrics, University of Louisville, Medical Dept.; Secretary of the Mississippi Valley Medical Association; Ex-Secretary and Ex-Chairman of the Section on Diseases of Children, American Medical Association; Ex-President American Association Medical Milk Commission, etc. With One Hundred and Six Engravings and Three Colored Plates. Second Revised Edition. St. Louis: C. V. Mosby Company, 1913. Price, \$5.50.

This is a sound, practical and well-written book on pediatrics, by an experienced practitioner. It will appeal especially to the student and general practitioner. The treatment is good, the prescriptions recommended are safe and palatable, and simplicity in therapeutics is noticeable throughout, except the prescription on page 597, which we trust will be omitted in the next edition. The subject of infant feeding is especially well handled. We also find chapters on eye, ear, nose and throat, and skin diseases, as they frequently appear in childhood. The illustrations are good, one illustrating Koplik's Spots a work of art. In short, those looking for a safe, reliable handbook on pediatrics will be well satisfied with Tuley's.

A TREATISE ON THE DISEASES OF WOMEN. FOR STUDENTS AND PRACTITIONERS. By Palmer Findley, B. S., M. D., Professor of Gynecology, College of Medicine, State University of Nebraska; Gynecologist to the Clarkson Memorial Hospital and Douglas County Hospital; Fellow of the American Gynecological Society; Fellow of the American Association of Obstetricians and Gynecologists; Fellow of the Chicago Gynecological Society. Octavo, 954 pages, illustrated with 632 engravings in the text and 38 plates in colors and monochrome. Cloth, \$6.00, net. Lea & Febiger, Philadelphia and New York, 1913.

This book, dedicated to J. Clarence Webster, is bound to be popu-

lar from the start. It is remarkably well arranged, splendidly illustrated, 632 engravings besides 38 color plates, and fully up to date, so that one must give this book unqualified approval. The teaching is conservative throughout and special attention has been paid to the non-operative methods of treatment. An immense amount of time and detailed work has been given to the preparation of this book, which is apparent even at a cursory glance. Every subject is considered, nothing glossed over, and both student and practitioner will find any query answered in full, in a clear and comprehensive manner.

While the book naturally represents the best consensus of the authorities of today, the personal factor is by no means overlooked, and the author clearly states his preference where various methods of treatment are indicated.

It would be ungracious not to say a word of praise regarding the publishers, who evidently have spared no expense in presenting the profession with a work of art as regards the mechanical make-up, engravings, plates, etc. We congratulate the author on his book and predict the appearance of numerous editions.

News Items

For Rent.—Large room in private suite in first-class office building, to rent May 1, 1914. Suitable for dentist or general practitioner. Private laboratory. Rest room and private exit. 1504 Kesner building, Wabash avenue and Madison street.

Lakeside Hospital.—Dr. A. Ralph Johnstone announces the removal of the Lakeside Hospital into its new home at 3410 Rhodes avenue. The building has been improved in many ways, and is completely equipped with new and modern furnishings. It will have a capacity of 75 beds. The hospital in its new location will continue to be under the same efficient management.

Medical, Surgical and Dental Books.—C. V. Mosby Company, of St. Louis, have just issued a new catalogue descriptive of their various publications. It contains a number of illustrations, among others a very interesting color plate from the new second edition of Tuley's book on "Diseases of Children," showing the buccal enanthem in measles. The publishers will be pleased to send a copy of this catalogue on request.

Commend A. A. McCormick.—The following resolution was passed by the Chicago Surgical Society at a recent meeting, a copy of the resolution being forwarded to Mr. McCormick:

"Be It Resolved, That the Chicago Surgical Society wishes to commend Mr. A. A. McCormick, president of the board of county commissioners, for the excellent work which has been done in the county hospital towards putting the institution upon a scientific basis, in which

records and observations of value can be made, so that the best interests of the patients will be conserved."

A Reaction to Differentiate Human from Cow's Milk.—Bauer states that if there be added to two or three cubic centimeters of human or cow's milk one drop of a one-fourth of one per cent watery solution of nileblue sulphate (Grübler), both specimens will be stained blue—but greenish blue in the case of cow's milk and violet blue in the case of human milk. If to either specimen there be added five times the volume of ether, and if the mixture be vigorously shaken, it will be noted that the cow's milk retains its blue color, while the human milk is decolorized. —*Monatsschrift für Kinderheilkunde.*

Immigration Totals.—More immigrants arrived in the United States in the fiscal year ending June 30, 1913, than in any preceding year with one exception. The total number was 1,197,692, while during the year ending June 30, 1907, 1,285,349 aliens were received. In only five years since 1820 have more than a million immigrants reached this country. The 1913 total comprised 808,144 males and 389,748 females. Of those debarred, 15,662 were males and 4,276 females. South Italy sent 231,613 immigrants during the year; Germany, 80,865; France, 20,652; England, 55,522; Ireland, 37,023; and Japan, 8,302.

The Reporting of Venereal Diseases in Pennsylvania.—The House of Delegates of the Medical Society of the State of Pennsylvania, at the annual meeting of that organization held in Philadelphia last week, adopted a resolution endorsing a proposition presented by Dr. Edward Martin, of Philadelphia, to make venereal diseases reportable to the health authorities of the state in the same manner that other communicable diseases are reported. The resolution was adopted without a dissenting vote, and the action of the governing body was communicated to the members of the society at a later session.

Colorado to Become Radium Producing Center.—According to press dispatches Colorado is to become one of the world's principal sources of the supply of radium. According to H. G. C. Thofehrn, representative of the Du Pont interests, the mines are to be developed largely for philanthropic purposes. The radium and its by-products are not to be produced as a commercial proposition, but in order that this powerful element may be brought within reach of everybody. The three mines recently purchased by T. Coleman Du Pont at Central City will first be developed, ore-treating plants being erected near the mines.

Illinois Conference of Charities and Correction.—The eighteenth State Conference of Charities and Correction has just been held at Rockford, Ill., on October 11, 12, 13 and 14. These conferences serve as an open forum in which the tremendous movements of the day for the betterment of social conditions may be freely discussed. Many interesting subjects were considered at the meeting this year, of special interest to the medical profession being Dr. George Zeller's lecture on the "State Institutions," a valuable paper on the "Conservation of Vision," by Dr. Thomas Woodruff, and an address by Dr. James Burry on "Injuries of the Eye in the Industries."

Lake Shore Hospital.—This homelike, private hospital, formerly known as the Lakeside Hospital, is located at 4147 Lake Park avenue. It has accommodations for seventy patients and is equipped with every convenience. The aim of the management is to preserve all the comforts of home while providing the essentials of a modern hospital. A special feature will be made of the nursing dietary and attention to the individual needs of patients. The operating rooms are fully equipped and there is a special department for eye, ear, nose and throat work. A "Life-saving Autogener" is on hand ready for all emergency work. Dr. Maximilian Meinhardt is the new medical superintendent.

A Course in Sex Hygiene at New York University.—Announcement is made by the chancellor of New York University that on October 19th a course in sex hygiene for teachers will be inaugurated at the School of Pedagogy of the institution. The course will consist of ten one-hour lectures, given on alternate Saturdays at 11:15 a. m. The aim of the course will be to give teachers a knowledge of the facts and principles constituting the matter of such instruction. The question of method will be treated only incidentally, and will form the special topic of a similar course to be given next year. Dr. Edward L. Keyes, Jr., Dr. Rosalie Slaughter Morton, Mr. George W. Hunter, and Dr. Thomas M. Balliet will be the lecturers.

Health Department Not Allowed to Close Playhouse.—Health Commissioner Young has issued the following statement:

"Without any preliminary notice to the health department an injunction was today issued against the commissioner of health by Judge McGoorty restraining the commissioner from interfering with the operation of the theater at 4370 Cottage Grove avenue, conducted by Christopher C. Whelan.

"Whelan is the president of the Moving Picture Exhibitors' League and positively refused to comply with the ordinance requirements as to the ventilation of his theater, although the official tests showed that the air supply was not more than half what it should be.

"The health department will commence proceedings at once, and if necessary, will carry the case to the Supreme Court.

"There is no pending issue of more vital and immediate interest to the citizens of Chicago than the question, 'Shall the foul air theaters be permitted to operate?'"

Personal.—Dr. George D. Kahlo announces his removal from French Lick, Indiana, to White Sulphur Springs, West Virginia.

Dr. W. J. Anderson has resigned as night warden of the County hospital.

The sixty-sixth anniversary of the birth of Dr. Alfred C. Cotton was celebrated September 25, at the Hotel Sherman by a banquet given in his honor by his associates in the Chicago Medical Society, who presented him with a diamond-studded gold watch.

Dr. C. Volini has been appointed by Governor Dunne as member of the West Park commission.

Dr. E. Fletcher Ingals and his wife and daughter have just returned from a three months' sojourn in Europe.

Dr. D'Orsay Hecht has changed his residence from 4139 Ellis avenue to 5142 Kimbark avenue.

Dr. Brown Pusey was operated on successfully for appendicitis by Dr. L. L. McArthur at St. Luke's Hospital. He is reported to be doing finely.

Thinks Beri-Beri Is Caused by Diet.—Dr. Max Moszkowski of Berlin, who has won distinction by his scientific researches in New Guinea, succeeded in giving himself an unmistakable case of beri-beri by living for 138 days upon a diet consisting almost exclusively of hulled rice. He believes his experiments support the theory formerly held by him, that beri-beri is a disease induced by certain foods and not due to an infection of any kind from without, as has been maintained by many investigators.

Dr. Moszkowski, who in 1911 advanced his theory in an address before the Berlin Medical Society, reported at the society's last meeting the results of the experiment which he has just finished. After a few weeks of hulled rice diet the nervous disturbance accompanying beri-beri appeared, and the case was then diagnosed as beri-beri by Dr. Schuffner, the noted authority in this line. The typical dropsical affection of the skin followed, with soreness of certain groups of muscles, stomachic disturbances and eventually the typical and dangerous irregularities of the heart action.

Dr. Moszkowski then treated himself with injections of an extract prepared from rice hulls. He recovered rapidly and is now quite well. Injections of this extract also cured pigeons and hens which had become affected with beri-beri after a hulled rice diet..

Medical Milk Commissions and Certified Milk.—The first bulletin in the new departmental series of the U. S. Department of Agriculture is a contribution from the Bureau of Animal Industry, entitled "Medical Milk Commissions and Certified Milk." This is a revision of a previous bulletin on the same subject.

The organization and objects of the first milk commission are described and the origin and meaning of "certified milk" are set forth. The word "certified" has been registered in the U. S. Patent Office, and may only be used by a duly organized medical milk commission.

The first milk commission was organized in 1893. Since that time over 60 commissions have been established, but nearly one-third of that number are inactive at present.

About 125 dairies are engaged in producing certified milk and the daily production is nearly 25,000 gallons, an increase of 300 per cent in five years. While this seems a remarkable increase, it should be remembered that only about one-half of 1 per cent of the total milk supply of the country is certified.

While the chief demand for certified milk is for infants and sick people, it further serves to teach the public the value of careful methods in milk production and the extra cost of absolutely clean milk.

The bulletin describes the equipment and methods necessary for the

production of certified milk. It is pointed out that expensive equipment is not a necessity so much as a careful and unremitting attention to details.

In 1907 the American Association of American Milk Commissions was organized. The methods and standards for the production and distribution of certified milk adopted by this association at its 1912 meeting are given in the appendix to the bulletin.

"Clean City" Appeal.—An appeal for a cleaner Chicago, better ventilation of theaters, an elimination of the dust nuisance and attention to the present housing laws was made by Alderman Willis O. Nance in an address given at Fuller Park before the Second and Third ward organizations of the Ladies' Political Club, on October 1st.

"Chicago people are entitled to cleaner air, cleaner streets, cleaner food, better housing conditions, better ventilation of public halls, better public protection and a more orderly condition of affairs generally," said Dr. Nance. "Our smoky, and soot-laden atmosphere, doubtless the cause of the loss of thousands of lives in this city annually and causing commercial damage amounting to many hundreds of thousands of dollars, must give way to better and cleaner conditions.

"The dust nuisance contributes strongly to the evil conditions. Breathing the dry refuse of the street daily cannot help but infect many citizens and induce serious catarrhal conditions of the nose and throat, and may even be conducive to tuberculosis.

"More efficient methods of street cleaning must prevail in Chicago. Simple sprinkling and flushing are inadequate. The first step should be the elimination of the uneven cobble stones and the substitution of a smooth roadway. Then let us try the large vacuum street cleaners which have proved successful in other large cities, notably in Europe. When we put our pavements down let us put them down to stay, not to tear up for underground work almost as soon as they are laid.

"We have given too little attention to the housing problem in Chicago. More daylight and sunlight, less crowding and better sanitary conditions generally in the homes of the poor will be the means of saving many hundreds of lives annually. This is one of the big economic problems confronting Chicago at the present day.

"We should not condone any attempt to nullify or mollify the present ordinances which provide for healthful ventilation of theaters. When it is known that the average daily attendance of the 600 theaters in Chicago reaches near the 500,000 mark, a large percentage being children, the seriousness and importance of this question becomes apparent."

A Word of Appreciation.—We note a word in praise of scientific medicine in a recent number of that popular weekly *The Saturday Evening Post*. Perhaps it will be a satisfaction to some of the "studious gentlemen industriously hunting little bugs" to know that their labors are not entirely without appreciation from the laity. The editorial is headed "Uncrowned Geniuses," and reads as follows:

"Mankind has an immemorial quarrel with the professions of law and medicine. The first time the common people of England ever expressed their political opinions was in the Peasants' Rebellion of 1381,

and one of their first expressions consisted of a proposal to behead all lawyers forthwith.

"The law is always vexatious; life and health are ever precarious. Probably the two professions that directly deal with these unsatisfactory conditions will never be really popular. Blaming the doctor will always be the staple recourse of many an invalid.

"The International Medical Congress met last month in London. Twenty-two years had elapsed since the previous meeting of the congress in that city; and at the meeting of 1881 Pasteur, Virchow, Lister and Koch were present. Attached to those four names is a sum of human good which possibly exceeds the sum that attaches to the names of any other four men who ever met together under one roof. You can get an idea of it at a glance by comparing the present Panama with the pesthole that baffled De Lesseps—or, if you prefer, by having your brains taken out, laundered and put back again.

"Comparatively speaking, they get little individual credit for it. Among the laity their names evoke no such emotion as the names of Grant and Lee, or even such admiration as the names of Wright and Edison. What the doctors did does not visualize itself.

"The best the lay imagination can do is to picture a studious gentleman industriously hunting little bugs in a laboratory or dressing a wound in a new fashion. The picture produces no emotional reaction.

"It is a misfortune of the profession that the greatest doctor can be a hero only to the sick."

Keep Out of Foul Air Theaters.—Of the 500,000 persons who daily attend the small neighborhood theaters of Chicago a very considerable proportion are children of school age, a conservative estimate being 150,000, a little more than one-third of the number enrolled in the public and parochial schools of this city. Among these 150,000 children there are undoubtedly some who are infection bearers, some, probably, who have been excluded from the public schools because their presence there was considered a menace to the health and life of the other school-children. We maintain a medical inspection corps of one hundred doctors and seventy-five nurses to detect and exclude from the public schools the infection-bearing children and those under suspicions of being infection bearers. There is no such inspection service applied to the small theaters, in fact, such supervision is hardly practicable.

There are some things we can do, however, to make our theaters safer places of assemblage, and these things we must do.

Conditions found in the average small theater of today are such as make these popular places of assemblage perfect incubators for and disseminators of disease germs. Lack of ventilation, which is the common defect found, means an air content fouled with body exhalations and ill-tempered by body heat radiation, conditions which make the presence of an infection bearer a very distinct menace, not only to the immediate assemblage, but also to others which follow in the succeeding few days.

Proper ventilation will very materially minimize this "menace of

the movies"—one is much less likely to pick up infections in fresh air than in stagnant, overheated, foul air.

Patrons of the small neighborhood theaters are beginning to appreciate these facts in rapidly increasing numbers. Proprietors of foul-air theaters will do well to take cognizance of the situation.

There are a considerable number of air-safe theaters in Chicago. They can be identified by the Health Department's certificate of ventilation, which is on display at their ticket windows.

Look for the ventilation certificate before entering a theater.

Don't permit your child to enter a foul-air theater.

Why gamble with health?—Bulletin of the Chicago Department of Health, September 27, 1913.

Examination of Candidates for Assistant Surgeon.—Boards of commissioned medical officers will be convened to meet at the Bureau of Public Health Service, 3 B street, S. E., Washington, D. C., and at the Marine Hospitals of Boston, Mass., Chicago, Ill., St. Louis Mo., New Orleans, La., and San Francisco, Cal., on Monday Oct. 20, 1913, at 10 o'clock a. m., for the purpose of examining candidates for admission to the grade of assistant surgeon in the Public Health Service, when applications for examination at these stations are received in the Bureau. Candidates must be between 23 and 32 years of age, graduates of a reputable medical college, and must furnish testimonials from two responsible persons as to their professional and moral character. Service in hospitals for the insane or experience in the detection of mental diseases will be considered and credit given in the examination. Candidates must have had one year's hospital experience or two years' professional work. Candidates must not be less than 5 feet 4 inches, nor more than 6 feet 2 inches, in height. The following is the usual order of the examinations: 1, physical; 2, oral; 3, written; 4, clinical. In addition to the physical examination, candidates are required to certify that they believe themselves free from any ailment that would disqualify them for service in any climate and that they will serve wherever assigned to duty. The examinations are chiefly in writing, and begin with a short autobiography of the candidate. The remainder of the written exercise consists of examinations in the various branches of medicine, surgery and hygiene. The oral examination includes subjects of preliminary education, history, literature and natural sciences. The clinical examination is conducted at a hospital. The examination usually covers a period of about ten days. Successful candidates will be numbered according to their attainments on examination, and will be commissioned in the same order. They will receive early appointments. After four years' service, assistant surgeons are entitled to examination for promotion to the grade of passed assistant surgeon. Assistant surgeons receive \$2,000, passed assistant surgeons \$2,400, surgeons \$3,000, senior surgeons 3,500 and assistant surgeon generals \$4,000 a year. When quarters are not provided, commutation at the rate of \$30, \$40 and \$50 a month, according to the grade, is allowed. All grades receive longevity pay, 10 per cent in addition to the regular salary for every five years' service up to 40 per cent after twenty years service. The tenure of office is permanent. Officers traveling under orders are allowed actual ex-

penses. For invitation to appear before the board of examiners, address "Surgeon General, Public Health Service, Washington, D. C."

A Bill, H. R. 8606. In the House of Representatives, September 27, 1913.—Mr. Reilly of Connecticut (by request) introduced the following bill, which was referred to the Committee on Military Affairs, and ordered to be printed.

A BILL To create a United States Medical Licensing Board.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that the President be, and he is hereby authorized and directed to appoint two medical officers of the United States army, with a rank of a captain and a major; two medical officers of the United States navy, with rank of lieutenant and lieutenant commander; and two medical officers of the United States Marine Hospital Corps, with rank of lieutenant and lieutenant commander to a board to be known as the United States Medical Licensing Board.

Sec. 2. That the terms of the members of the board to be four years each, and the salary of each member thereof to be \$4,000 per annum with mileage. Said board shall be in continuous session at Washington when not on duty in various states.

Sec. 3. That all regular licensed medical practitioners of medicine, now holders of a medical diploma and a State license permitting them to practice in the respective States, shall upon the passage of this Act, by presenting to said board their medical diploma, their State medical license, and any other diplomas they may have, and upon the payment of the sum of \$2 be given a United States license which will permit them to practice their profession of medicine in any state or territory of the United States and its possessions.

Sec. 4. That the United States Licensing Board shall hold its meetings in various cities of the United States and shall examine all newly graduated medical doctors so that they may obtain a United States license, which license will permit them to practice medicine or surgery in any state or territory of the United States and its possessions without any further examination; provided, that the candidate for said license shall fulfill all the requirements of the American Medical Association and shall be an American citizen and present a high school certificate or its equivalent and shall have a doctor of medicine diploma from a medical college in good standing, as declared by the American Medical Association, and upon the payment of \$10 and the filing of certificates of good moral character shall be admitted to examination and upon the passage of said examination shall be granted a United States license, which will permit the holder to practice medicine and surgery in any state or territory of the United States and its possessions.

Sec. 5. That the license may be revoked in case abortions or other unprofessional and criminal acts are performed.

Ottawa Tuberculosis Colony.—We are in receipt of a booklet illustrating the present buildings and equipment of the Ottawa Tuberculosis

Colony. It is no exaggeration to say that this booklet not only represents one of the best equipped and best conducted sanatoria for the treatment of tuberculosis in this country, but is a beautiful work of art, complimentary alike to the management and the artist who designed it. No one receiving this booklet, whether interested in the institution or not, would pass it by unnoticed or be so reckless as to throw it into the waste basket.

This pioneer institution has developed in the past nine years from a camp of a few army tents to a fully equipped sanatorium for the care and treatment of all forms of tuberculosis by the most approved methods. If it has not accomplished all that mistaken enthusiasts expected, it has done all and more than those who are familiar with the treatment of tuberculosis dared hope for at the beginning. It has demonstrated that climate is not an essential factor in the treatment of tuberculosis; has stimulated and assisted in the founding of new sanatoria throughout the middle west; has demonstrated the practicability of locating sanatoria near centers of population and that such institutions are not a menace to contingent residents and property; has been a prominent factor in the tuberculosis propaganda, not only in arousing the public from that hopeless apathy which has been and still is the greatest obstacle to progress but has sent out hundreds of patients who by their example, have been centers of influence in teaching their families and friends methods of prevention; has devised more economic plans for housing and the care of the tuberculous patient which have been generally approved; and in common with other sanatoria has stimulated greater interest in out-door living both for the sick and well.

There have been 1,400 patients admitted for treatment since the colony was established. The results have been actual or clinical cures in about 45% of the cases, based upon the condition of the patient two years after leaving the institution. This is a splendid showing especially in view of the fact that only 10% were in the incipient stage and the average stay was less than four months. As Dr. Pettit says, "This is about one-half the possibilities of the treatment. The four factors which are responsible for the large number of failures are first, the large percentage of incurable cases admitted; second, the popular belief that a cure can be effected in a few weeks; third, the failure to recognize that the patient is usually more of a problem than his disease; and fourth, the attempt to carry out the treatment in the home." Some of these conditions may be improved by the medical profession, and all of them by a more enlightened public.

The modern treatment of tuberculosis has great possibilities, but it cannot meet the present unreasonable demands of the public. It is unfortunate for all concerned that the public and to some extent the medical profession entertain such exaggerated views with regard to the simplicity of the treatment and the time required to effect a cure. Given an early diagnosis and a six months' sanatorium residence and the present results can be more than doubled. It is a mistake to put a time limit upon the treatment in advance, and when this is done, oftentimes leads to such disappointment as seriously to handicap the patient in his strug-



Chicago Surgeons Made Fellows of American College of Surgery

TWELVE HUNDRED practicing surgeons of the United States and Canada were admitted to membership in the American College of Surgeons at its first convocation, which was held in the gold room of the Congress hotel, Nov. 13th. The organization is patterned after the Royal College of Surgeons of England, and each member subscribed to the following pledge before being admitted as a member and presented with his certificate:

"Recognizing that the American College of Surgeons seeks to exemplify, enforce, and develop the highest traditions of our calling, I hereby pledge myself, as a condition of fellowship in the college, to live in strict accordance with all of its principles and declarations.

"In particular I pledge myself to pursue the practice of surgery with thorough self-restraint and to place the welfare of my patients above all else; to advance constantly in knowledge by study of surgical literature, the instruction of eminent teachers, interchange of opinion among associates, and attendance on the important societies and clinics; to regard scrupulously the interests of my professional brothers and seek their counsel when in doubt of my own judgment; to render willing help to my colleagues and to give freely my services to the needy.

"Moreover, I pledge myself, so far as I am able, to avoid the sins of selfishness; to shun unwarranted publicity, dishonest money seeking and commercialism as disgraceful to our profession; to refuse utterly all secret money trades with consultants and practitioners; to teach the patient his financial duty to the physician, and to urge the practitioner to obtain his reward from the patient openly; to make my fees commensurate with the service rendered and with the patient's rights; and to avoid discrediting my associates by taking unwarranted compensation.

"Finally, I pledge myself to co-operate in advancing and extending by every lawful means within my power the influence of the American College of Surgery."

CHICAGO MEMBERSHIP 106.

The following is a list of Chicago surgeons admitted to membership in the organization:

Frank Allport,	William Hessert,
E. Wyllis Andrews,	Junius C. Hoag,
Frank T. Andrews,	Rudolph W. Holmes,
Charles S. Bacon,	Charles E. Kahike,
Walter S. Barnes,	Allen B. Kanavel,
Charles H. Beard,	A. Belcham Keyes,
Carl Beck,	Oscar H. Kraft,
Emil G. Beck,	Sylvan Kuhns,
Joseph C. Beck,	Dean D. Lewis,
William T. Belfield,	W. H. G. Logan,
Frederick A. Besley,	Frank W. Lynch,
Arthur Dean Bevan,	John A. Lyons,
Wallace Blanchard,	G. W. Mahoney,
George W. Boot,	George P. Marquis,
Albert I. Bouffleur,	Franklin H. Martin,
F. E. Brawley,	L. L. McArthur,
Truman W. Brophy,	George McBean,
Coleman G. Buford,	C. Hugh McKenna,
James Burry,	Frederick Menge,
Henry T. Byford,	Frank D. Moore,
W. E. Casselberry,	F. B. Moorehead,
Howard R. Chislett,	George Morgenthau,
William R. Cubbins,	John B. Murphy,
Carey Culbertson,	Albert J. Ochsnor,
Arthur H. Curtis,	Edward H. Ochsnor,
W. C. Danforth,	John E. Owens,
Charles Davison,	Charles E. Paddock,
Philip S. Doane,	William R. Parkes,
Joseph B. De Lee,	J. R. Pennington,
Oscar Dodd,	N. M. Percy,
Robert Dodds,	D. B. Phemister,
E. J. Doering,	Norval H. Pierce,
W. A. N. Dorland,	S. C. Plummer,
E. C. Dudley,	John L. Porter,
Frederick G. Dyas,	H. M. Richter,
D. N. Elsendrath,	C. M. Robertson,
George F. Fiske,	Cassius C. Rogers,
Ira Frank,	Edwin W. Ryerson,
Jacob Frank,	C. S. Sanborn,
L. E. Frankenthal,	Louis E. Schmidt,
Emanuel Friend,	W. E. Schroeder,
William Fuller,	G. E. Shambaugh,
Thomas L. Gilmer,	William N. Senn,
John F. Golden,	Kellogg Speed,
Albert Goldspohn,	D. A. K. Steele,
Mark T. Goldstine,	Charles J. Swan,
David W. Graham,	Thomas J. Watkins,
George W. Green,	J. C. Webster,
L. A. Greensfelder,	Cassius D. Westcott,
T. M. Hardie,	William H. Wilder,
M. L. Harris,	Daniel H. Williams,
William M. Harsha,	Casey A. Wood,
Noble S. Heaney,	Thomas A. Woodruff.

CANCER SYMPOSIUM—ABSTRACT OF PAPERS PRESENTED AT
AN EVENING SESSION OF THE CLINICAL CONGRESS
OF SURGEONS, ORCHESTRA HALL, NOV. 13, 1913.

REPORT OF THE CANCER CAMPAIGN COMMITTEE OF THE CLINICAL
CONGRESS OF SURGEONS OF NORTH AMERICA.

DR. THOMAS S. CULLEN, Baltimore: So much has recently appeared in the press regarding the value of radium in treating cancer that your committee has deemed it advisable to refer briefly to this subject. Mr. Chas. L. Parsons, of the United States Bureau of Mines, sums the matter up well in an article published in *Science*, October 31, 1913, in which he says: "It is to be regretted that, owing to the high price of the material, only three or four American surgeons have been able to use radium in quantities sufficient for the drawing of decisive conclusions. In the progress of future applications of radium to the curing of disease, nothing is more to be feared than its use in nostrums of every kind. The 'wonders of radium' have been so extensively exploited in the public press that already the name is being employed as a psychological agent in advertisements of all kinds of materials, many of which contain no radium at all, or, if this element is indeed present, in such small quantities that no therapeutic value can be expected."

From this statement it is clearly evident that the supply of radium in this country is as yet very limited, and that only three or four surgeons in the United States have had sufficient quantities of radium to enable them to satisfactorily test its efficacy in treating cancer.

It is evident that the knowledge of cancer has already been widely disseminated, and it is bound to bear fruit. The more the subject is investigated, the clearer it becomes that if the women of the country are made aware of what can be done if cancer patients apply early for treatment, it will be unnecessary to pay much attention to the men. If men are sick, unless very ill, they pay no attention to it, and only after they are urged by their mothers, wives, sisters or daughters do they seek medical aid. As a matter of fact, the woman is the health guardian of the household.

The campaign of education has, however, in reality just begun. It will be necessary to enlighten every member of the community. The problem is a complex one—one that cannot be handled in the same manner that tuberculosis has been. Cancer affects chiefly the patient, and is of little danger to those around. There is no danger signal such as a cough to draw attention to the malady. Much can be accomplished through carefully written and authoritative articles in the daily press and in magazines. But this will not be enough. The symptoms of each and every form of cancer must be indelibly impressed upon every individual.

With the increased number of cancer patients seeking surgical aid will come a large number of borderline cases—cases in which a careful microscopical examination of the growth must be undertaken to determine whether it is cancer or not. If malignant, operation is indicated at once. This will make it necessary for every hospital to have a trained expert surgical pathologist on its staff, a man whose advice can be had at every operation. He will prove to be one of the hospital's most valuable assets.

Your committee wishes to draw attention to the absolute necessity in every case of cancer of a thorough operation. To accomplish the maximum amount of good for the increased number that will come for operation as a result of our labors, our surgeons must be thoroughly conversant with the anatomy of the parts concerned, and must have a full knowledge of the paths along which the cancer travels from its point of origin. In cancer of the lip, for example, the operator must consider the removal of the glands of the neck. In cancer of the breast, he must be familiar with the lymph glands that are first involved; in cancer of the rectum, he must remember that the liver is frequently secondarily invaded, and that if such be the case an extensive rectal operation is contraindicated.

With the increased number of cancer patients coming early for operation, the percentage of cures will naturally be increased, and with improved methods of operating this percentage will be still further improved.

It is problematical whether the etiology of cancer will soon be discovered or not, but in any event the people of the country should be made thoroughly cognizant of the early symptoms of the disease, and of the fact that many may be cured by early operation.

The following is, in a few words, the message of this Committee of the Clinical Congress of the people of this country:

First, cancer is a very common malady; second, in the beginning it is a strictly local process and not a blood disease; third, it is easily cured when removed early in its course; fourth, it is incurable in its later stages; fifth, it is no respecter of race, creed or social distinction; sixth, it is the common enemy of all mankind.

PUBLICITY THROUGH THE LAY PRESS.

MR. SAMUEL HOPKINS ADAMS, New York City: Much can be done in the health education of the public, whether in cancer, tuberculosis, in the venereal plagues, in the epidemic diseases, by lectures, more can be done by the magazines; but the universal agency of popular education is the daily press. Between that great agency of enlightenment and the medical profession there has been raised a barrier, fraught with difficulties, the barrier of the unwritten law of the profession, which says to the doctor, "Thou shalt not appear in print." How can a man who has anything to say in the world

that is worth hearing, speak out of the daily press, and if he will get in anyway, why not open up the channels of publicity, and give the doctor a chance to get into the daily press, not in garbled form, but with the facts as he states them?

There is only one law of ethics, and that is the golden rule. Whatever controverts that rule is, *per se*, unethical. Whatever lies outside of that rule, while it may be very proper and commendable, is not ethics. You may call it medical ethics, legal ethics, or journalistic ethics; but if it lies beyond the scope of the golden rule, if it does not take into consideration fundamentally the greatest good to the greatest number, then it is not ethics at all, but merely a regulation for the protection of those engaged in that trade. And I rather think that the ban of silence imposed upon the medical profession, so far as the daily press is concerned, comes more properly within the scope of the trade rule or regulation. If that is the fact, then we can examine its worth from a practical point of view. What is its value? In the old days, when the doctor was merely the healer, then there was no good reason why he should appear in print. In fact, there were excellent reasons why he should not. But the physician himself has changed all that. The modern physician does not regard himself merely as a healer; he is a doctor, a teacher, an instructor of the public, a leader of popular thought in the new science of hygiene which has become so general. In that capacity how can he, with justice to himself or the public, throw aside the most potent weapon of education which lies ready to his hand? We may all criticise the newspapers, but the daily paper, with all its sins, is the one agency by which the medical profession can attain immediate, positive and direct universal education—a saturated solution of enlightenment. Nothing else will do it. There never has been a time when the opportunities for education through the lay press were so brilliant. There is no sacred reticence required of a doctor other than that which guards the privacy of his patient. The time has come when the old, obsolete ban of silence should be lifted and the propaganda should go on through the agency best fitted to spread it—the daily newspapers.

PUBLICITY AND EDUCATION THROUGH THE AMERICAN SOCIETY FOR THE CONTROL OF CANCER.

DR. EDWARD REYNOLDS, Boston: The opening years of the twentieth century have been marked by the beginning of the control of many of the great scourges to the public health. In considering the practicability of a campaign against cancer, the first step should be to compare all your knowledge of this disease with what was known of malaria, yellow fever, tuberculosis, typhoid fever and syphilis at the beginning of the fight against them. In each of these instances the first step towards ultimate success was the study of the organisms which caused them. The study of the bac-

teria of malignant growths is not fully completed, but that they are of bacterial origin may now be accepted as a working hypothesis, especially since in not one of the other cases were the laboratory results accepted by the world as final. In each of the other cases the second step in the advance towards control was made by the application of ordinary methods of evidence to the known bacteriological facts. The origin of yellow fever in the bite of an infected mosquito was proved to the world by exposure experiments made in Cuba and the road to its control was then clear. Again, the discovery of the bacillus of tuberculosis was of little practical avail until it was shown by actual experience that continuous exposure of the individuals to pure air could be relied upon not only for prevention but for cure. So, too, in each of the other cases quoted a similar practical study has been necessary to success. In each of them the use of carefully thought out and extended organization and of large amounts of money has been necessary to effective control.

One more fact is to be noted in connection with each of these diseases. In the process of advance there has always been a stage, and one which has always preceded the advent of successful preventive methods, in which, while the country was being devastated by the disease, those individuals who possessed advanced information were able to avoid it, or at least were able to avoid, in the majority of instances, its mortality. Had the general wisdom of the world been more advanced, wide publication to the world at large, and in the early stages of the study, of even the few facts which were then definitely and indisputably known, it would have saved in each of those great instances thousands of lives which were lost for the lack of the little knowledge which was even then possessed by the few who were on the inside.

These facts are of much interest in connection with the proposed campaign against cancer. The laboratories have given us reason to believe that the disease is of bacterial origin and consequently in some way communicable, i. e., in some way presumably preventable. We do not as yet know how. If we could apply sufficiently extended study to the origin of a great number of cases of disease, we should probably learn this all-important fact. Experience with the other diseases must justify such a belief. But to apply such study to the widely scattered disease like cancer means the existence of a widespread and well-planned organization, so organized and so financed as to be capable of devoting to it an immense amount of labor.

We do not as yet know the method of communication of the disease, and we have not as yet attained any foothold upon assured ground in the search towards any of the ideal methods of cure, which we hope will yet come, but we have today one piece of definite knowledge which is per-

mitting us already to restore to full health and longevity thousands of lives which before we had it were doomed irretrievably to hopeless death after long-drawn suffering. We know now that in many situations the malignant diseases are preceded by what we may call, for the sake of brevity, a pre-cancerous state, such as the adenomatous stage in the development of cancer of the body of the uterus. We are able to diagnose this condition with certainty in many of the forms of malignant disease whenever the patient comes to us in that early stage, and we know that in that stage a radical operation promises in many situations of the disease an almost absolute immunity from recurrence as opposed to certain death if the patient reaches us too late. We are individually doing our best to publish to the world the importance of early diagnosis, but collectively, and as a profession, we have as yet done nothing. We can exert but little influence upon the over-conservative, the timid and the other weak and halting members of the profession, but our patients, the great lay public, have a right to demand that every member of the profession should be forced to do his duty in this direction. We are each of us individually doing our best to accumulate further information about the disease, but as a profession we have made no organized effort towards the systematic and widespread investigation which is the necessity of the day. We have not as yet had the organization, the money nor the trained workers which are essential to success. The surgical profession is more than ready to give its time and its trained ability to this work, but the profession forms neither a large nor, as a whole, an affluent percentage of the community. The money for any such widespread organization must come from the more numerous and the more wealthy laity, for whose benefit this movement is being inaugurated.

The American Society for the Control of Cancer is a body which is composed of prominent members of the profession and of influential representatives of the laity. It is actively at work in perfecting a widespread organization of national scope for the active prosecution of this campaign. It has already been guaranteed, and, indeed, for the most part, has already in cash the large amount of money which is necessary even for the initial expense of the organization. It has already under salary a general executive secretary, whose past career is a guarantee of his possession of the necessary power of organization. It plans to work in cooperation with all the existing organizations in the study of cancer and in the promotion of the necessary publicity of all the points on which we already have assured knowledge. It has already been assured of hearty cooperation from the more important of these pre-existing bodies, and has received the endorsement of all, or nearly all, of the great national medical associations. It asks the sympathy and effective aid of every member of the profession and of every interested layman and laywoman.

It is essential to so large an undertaking as this that its initial organization should receive the time and attention and the very large amount of labor which is essential to its perfection, but we believe that we are rapidly approaching the day when we shall put our appeal for aid, in both money and work, before every one of you and before the public, in the concrete form which will make rapid progress possible.

PUBLICITY AND EDUCATION THROUGH THE COUNCIL ON HEALTH AND PUBLIC INSTRUCTION OF THE AMERICAN MEDICAL ASSOCIATION.

DR. FREDERICK R. GREEN, Chicago: Today our knowledge of the causes of disease, its method of transmission and the possibility of its prevention imposes a duty on the profession toward the public which is being recognized as a most important function of the medical profession. Since scientific medical men alone possess the technical knowledge necessary for the handling of such problems, society must look to them for such knowledge. But when an effort is made to apply this knowledge for the production of practical results, it is found that while the specific cause of a disease and the history of the organism may be known in most minute detail, the prevention and suppression of the disease is a social and not a scientific problem.

Increasing knowledge of the causes of diseases, perfection of methods for their prevention, as well as the recognition of the paramount importance of the regulation of social conditions for such prevention, make it necessary that there should be an educated public sentiment back of all of our efforts for disease control. The real and only effective force in this country is public opinion. Laws are the crystallization of public opinion, not its formative influences. When this principle is fully recognized we will cease to advocate the adoption of mandatory laws without first creating a discriminating and intelligent public opinion on the necessity and importance of such regulation.

The necessity for public instruction on the prevention of disease has been recognized by practically all of our State Boards of Health, and by many of our municipal health departments. It has also been recognized by the organization of a large number of special voluntary societies, composed of those interested in some special problem, and devoted to the arousing of public sentiment on this specific subject.

What can the Council on Health and Public Instruction of the American Medical Association do to enlighten the public on this subject? The answer is obvious. We can place at the disposal of the American Society for the Control of Cancer and the Committee of the Clinical Congress of Surgeons of North America all of the resources of the Council on Public Health Education. Through the press agent suitable material on this subject can be placed in the hands of five thousand editors, without

any cost to the society or to the committee. Through the Speakers' Bureau addresses can be given to the public on cancer and its menace. Through the Bureau of Literature pamphlets and reprints on this subject can be distributed. Later on, through the lantern slide bureau of exhibits material on cancer and its control can be placed before the public. The agencies at work on this problem at present are the American Society for the Control of Cancer, the Committee of the Clinical Congress of Surgeons of North America, and the Council on Health and Public Instruction of the American Medical Association.

The work needed to be done seems to be threefold, and to be peculiarly adapted to these three organizations. The first thing is to interest the public, especially the wealthy and influential public, in the problem of the control of cancer. This is a public welfare movement, and there is no reason why the public should not assume part of the expense. This is the work for which the recently organized Society for the Control of Cancer is admirably adapted.

The second necessity is the careful investigation of the entire problem, its age, race and sex incidence, its relative frequency in different occupations and locations, and all the clinical facts connected with its appearance. There is today in the records of our different hospitals throughout the country an enormous mass of undigested material on this subject. This is clearly a clinical and a surgical problem.

The third requirement is the distribution to the public of the results of such an investigation. This is obviously a task for the Council on Health and Public Instruction of the American Medical Association, representing, as it does, the organized profession of the entire country. Through its machinery it can without any additional expense place before the public any information which may be desired on this question.

THE EDUCATIONAL VALUE OF CANCER STATISTICS TO INSURANCE COMPANIES,
THE PUBLIC, AND THE MEDICAL PROFESSION.

MR. FREDERICK L. HOFFMAN, Newark: The cancer death rate in the United States is unquestionably on the increase among both sexes at all ages over forty, and for all important organs and parts. The number of deaths from cancer in the United States for 1912 was about 71,000, of which 28,041 were deaths from cancer of the stomach and liver; 10,790 were of the female organs of generation; 9,371 of the peritoneum, intestines and rectum; 6,886 of the breast; 2,768 of the buccal cavity, and 2,627 of the skin, while in addition thereto 10,507 deaths were due to cancer of other organs and parts. It must be taken into consideration, also, that the operative mortality in cancer has been materially reduced and, therefore, a considerable number of lives are saved at the present time which in former years would have increased the mortality from malignant disease.

Cancer in its relation to life insurance presents itself in a threefold aspect: First, as a problem in selection in insurance medicine; second, as an element in insurance experience; third, as a question of state medicine, with special regard to the educational value of cancer statistics and the feasibility of cancer control.

With reference to the experience of life insurance companies regarding the subject of cancer: The Prudential Insurance Co., of America, published on several occasions, in connection with exhibits made by that company, but brought down to date, mortality statistics with regard to cancer. The experience proved a distinctly lower proportionate mortality among industrial policy-holders, representative of the wage-earning and less prosperous element, and a distinctly higher proportionate mortality among ordinary policy-holders, representative of the prosperous and the well-to-do. The experience seemed to confirm the view that the cancer is relatively more common among the well-to-do than among the poor, and that the excess in the death rate is largely attributable to over-nutrition as a possible primary exciting cause or irritant in the production of cancerous affections.

The results of the work of Winter, of Koenigsberg, to reach the general public by means of an educational campaign in the field of cancer prevention, commencing with 1891, on the whole, justified the effort. The literature distributed by Winter should be translated and made accessible to American readers. The propaganda for the education of the public, and the value of an early recognition of the symptoms of cancer and the unquestionable importance of the earliest possible operative treatment, has been extended to many other countries besides Germany, but as yet little has been done in this respect in the United States. It is, therefore, most gratifying that a national society for the control of cancer has come into existence this year, and the outlook is encouraging that by cooperating with medical and surgical societies, the life insurance companies, and the lay press, a vast amount of good can be done, particularly in the direction of suggesting to the public the supreme importance of the earliest possible operative treatment and the great danger of even a comparatively short period of delay.

In the General Memorial Hospital of the city of New York, for the decade ending with 1911, the fatality rate has only been 7.9 per cent, which may be accepted as conclusive evidence of satisfactory results under the best possible conditions of treatment and after-care. In fact, in operations for cancer of the breast the fatality rate in this hospital has only been 2.5 per cent. Facts like these, if brought to public attention, will unquestionably tend to increase public confidence.

It is necessary that there should be intelligent and active cooperation

between the laity and the profession, on the one hand, and the life insurance companies, and the federal and state governments, on the other, in the control of cancer. If, by means of such cooperation the present upward tendency of the cancer death rate is only halted, and if, by indefatigable efforts even a slight reduction in the rate from any or several forms of cancerous affections is brought about, the results will be well worth while, and the work done will be a genuine contribution to the well-being of civilized mankind.

THE RADIO-THERAPEUTIC TREATMENT OF CARCINOMA.

DR. C. J. GAUSS, Freiburg, Germany: The treatment of cancer has today again reached a new stage of interest among all nations, owing to the treatment of it by rays and to the endeavor to approach the treatment of cancer by another route than that of operation, which was hampered by the many disappointments which the surgical treatment of cancer has caused us.

In the first stages of the operative treatment of cancer it was considered sufficient to remove primary cancer by operation. Soon, however, it was found that the number of relapses was so great that at that time experienced physicians formulated the decision that cancer, even with the knife, was an altogether incurable and mortal disease.

You know that surgery has been occupied in attaining better and more lasting results by means of a treatment ever more and more radical; that means thorough removal of the primary seat of the disease, and removal at the same time of the surrounding swelling which, according to experience, absorbs the lymph from the part attacked by the cancer. This extended operation had necessarily the result that the primary mortality increased quite appreciably, but at the same time it had the advantage that the results improved in the long run. These experiments, which now date from a sufficiently long time ago, have proved that even with this so-called extended carcinoma operation the results are in no way to be described as satisfactory. Especially are the operative results in the important regions of the abdominal and genital organs still to be only described as very disappointing, and this in spite of the improved technic of these days.

I have lately collected the permanent operative results of our clinic, especially of ovarian carcinoma, from which it appeared that unfortunately there was a tendency to relapse in exactly one hundred per cent. The situation in regard to carcinoma of the stomach and small intestine is just as unfavorable—abnormally high primary mortality and unfavorable after-results, even if the cures of carcinoma of the cervix and the rectum are somewhat more satisfactory. Yet, in spite of the widely spreading use of the rays, only some operators have absolutely a definite number of cases of

cervix carcinoma, from fifteen to twenty per cent, and this result has only been achieved when it was a matter of the relatively more favorable cases, of a town population, and not of a country population (which usually only applies late to a doctor on account of its carcinoma). You know, the rays treatment of carcinoma was first developed here in America, especially, but it did not in general yield encouraging results, so that it was only resorted to by the majority of operators when the cases were desperate and distressing, and then only to mitigate the symptoms—not with a view of achieving a definite cure. You know, however, that then the therapeutics of light were still further developed, and that above all it was shown that by means of excluding the soft rays, both in the Roentgen and in the radioactive substances, still deeper, and not only superficial effects, can be obtained. It is true that in Germany, even as here in America, we are still in the middle of the discussion about the success of the ray treatment. While, on the one side, some hope to be able to see a glorious view in prospect, and believe that better results will be achieved by ray treatment than by surgical treatment, on the other side a gloomy pessimism remains. No one can say today how the lasting result will appear. Only so much may be affirmed at present with any confidence, that the primary results of the application of filtered rays are often quite startlingly favorable. Dr. Krönig has microscopic pictures taken from the tissues of carcinoma which had been exposed to Roentgen radium for a considerable time, and mesothorium treatment with filtered rays. They are pictures of his own cases, which show that one can obtain not only on the surface, but also in the interior, through the abdominal integuments, by means of ray therapeutics, an extraordinary influence upon the carcinoma, and these show, too, at least a partial healing of the cancer by rays. Often enough, however, the primary effects of deep rays on the cancer are such that, try as we may, we can detect no carcinoma left. Of course, we must admit that with the improvement of the symptoms, with the achieving of the diminution of carcinoma, there is naturally not the least proof that we are dealing with a case of carcinoma. It is necessary to prove that the carcinoma which is thus brought under a process of cicatrization is definitely influenced, in such lasting manner that the carcinoma cells on that spot cannot again obtain the power of new growth. Whether we are in a position, nevertheless, at certain intervals to put the carcinoma into a lasting state of abeyance by fresh ray treatments, is all a matter for further observation. Only this much seems to us today to be proven, that the attempt to use the radio-active energy with even operable carcinoma is absolutely justifiable, as far as they are accessible to the eye and to the sense of touch. If we always persist in the idea that we must submit only incurable cases to the treatment, we shall never be able to compare the success of the ray treatment with the surgical treatment.

Only a certain degree of optimism can give us energy to go forward upon a path so beset with difficulties.

A VERY RECENT INVESTIGATION OF THE OUTCOME OF THE CASES OF CANCER
RECORDED IN THE JOHNS HOPKINS HOSPITAL AND THE
SURGICAL PATHOLOGICAL LABORATORY.

DR. JOSEPH C. BLOODGOOD, Baltimore: In 85 cases of benign lesions of the lip there were 100 per cent cures. In lesions of the lip which to sight and touch seemed benign, but which under the microscope proved to be early cancer, there were 9 cures, 90 per cent. The failure to cure in the one case was due to an incomplete operation on the lower lip. When the lower lip only was removed and not the gland, seven were cured, 63 per cent. The failure to cure in four cases was due to the involvement of the glands under the jaw. When the complete operation was performed, that is, removing the lesion of the lip and the glands of the neck, there have been 20 five-year cures, 95 per cent. In cases where the lip has had previous treatment, with recurrence on the lip, which is cancerous, the probability of a cure is reduced from 63 to 20 per cent; 95 to 60 per cent, and 50 to 20 per cent. Operation for recurrent cancer of the lip reduces probability of a cure at least 42 per cent.

In the least malignant form of cancer of the breast 35 patients were cured, five years or more after operation. Fifteen patients came so early for treatment that a diagnosis of cancer could not be made until the lump was explored at operation. These patients have all remained well five years or longer—that is, 100 per cent of cures when operated in the early stage in the less malignant forms of cancer of the breast. In this same form 20 patients came for treatment late; the same complete operation was performed, but the percentage of cures was but 64. The results, therefore, in the less malignant form of cancer of the breast were: 35 cases, 76 per cent cures; early cases, 15, 100 per cent cures; of 20 late cases, 64 per cent cures. The percentage of cures in all cancer cases in which the complete operation can be done, with five-year period after operation, is now 42 per cent. Five years ago it was 35 per cent.

Regarding cancer control and precancerous lesions, the great hope for increasing the number of cures of cancer and decreasing the number of deaths from it lies in the education of the public and the profession on the significance and potential danger of the precancerous lesion; the education of the surgeon as to the best surgery, and the education of the surgeon and pathologist as to recognition of the earliest stage of cancer, in the benign precancerous lesion. Incomplete treatment in the earlier stage often yields a worse result than complete treatment at a later stage.

FIRST AID INSTRUCTION AND THE PREVENTION OF INJURY.*

By SAMUEL C. PLUMMER, M. D.

Chief Surgeon, Rock Island Lines.

The American Association of Railway Surgeons has devoted its chief effort to the discussion of what is best in the practice of surgery, and this is eminently fitting, because we are, first of all, surgeons in the broadest sense. That surgical technic which is best from a broad surgical standpoint is also the best railway surgery, best for the injured employe and best for the company; for the greatest satisfaction for all concerned results from the best surgery.

Our principal field will, therefore, always be to disseminate and urge the practice of the best surgery, keeping apace with the advances which are constantly being made.

As the greater part of the surgery which we are called upon as railway surgeons to perform is traumatic or accidental surgery, we have quite properly, specialized in this department, as the programs of our meetings will show.

While, however, we have always given traumatic surgery our first consideration, there are certain other lines of thought which deserve our attention, because as railway surgeons we can do valuable work along these lines for the employes as well as for the companies we represent.

I need merely to mention some of these lines and ask you to look over the proceedings of our Association meetings, as published in our *Railway Surgical Journal*, to prove that we have not neglected our duties in these various directions. Among other subjects I will enumerate the relations of the surgeon to the employe and to the company, the examination of applicants for employment and re-examination of employes and railway sanitation. In the latter field we have a standing committee which is doing excellent work and which reports annually at our meetings.

I wish at this time to direct your attention to two of the newer fields which are now receiving more than ordinary attention on the part of railway officials and in which we can render valuable assistance. I refer to First Aid Instruction and to the prevention of injury, or "Safety First" movement.

FIRST AID INSTRUCTION.

In European countries first aid instruction has been carried on for many years under the auspices of well-organized central bodies. In the city of London a majority of the policemen hold diplomas from St. John's Ambulance Association.

*President's address at the annual meeting of the American Association of Railway Surgeons, 1913.

In the United States first aid instruction has been carried on among various classes of people in various parts of the country for more than a quarter of a century, but until quite recently there has been no authoritative national organization behind it.

My first active interest in this field was in 1893. In that year Dr. H. W. Gentles was in charge of the ambulance service at the World's Columbian Exposition in Chicago. He had been thoroughly schooled in first aid in his native country of Scotland from which he had recently come. At the close of the Exposition he organized in Chicago almost single-handed the Columbian Ambulance Association for the dissemination of first aid instruction. Classes of city policemen and firemen were instructed and it was my pleasure to examine some of these classes. I was greatly impressed by the practical nature of the instruction, but even more so by the great interest which members of the classes took in the work.

Even before this, first aid instruction had been introduced on some of our railways through the efforts of their chief surgeons, and also in some industrial plants.

On January 5, 1905, by a special act, Congress dissolved the American Red Cross Society then existing, and incorporated a new organization to operate under government supervision. The President of the United States is now the President of the American Red Cross Society, and in that capacity he has appointed a member of the Medical Corps of the United States Army to act as head of the First Aid Department. The present incumbent is Major Patterson.

This arrangement resulted in the standardizing of first aid instruction under the auspices of the American Red Cross which is, by congressional enactment, under the supervision of the national government.

Mayor Charles Lynch, formerly head of the First Aid Department, has had text books published for instructors and an abridged edition for the members of classes, giving the course of instruction so arranged that each chapter covers the matter to be considered at one meeting of the class. Charts and first aid instruction outfits have also been devised. A standard examination blank is furnished and, when the course of instruction is completed, an examiner is appointed who had no part in the instruction of the class, and upon the completion of his examination he forwards the blank, properly filled out, to the American Red Cross headquarters in Washington, D. C. To those who have satisfactorily passed the examination diplomas are sent from Washington.

The American Red Cross did a splendid work in first aid instruction among miners. To make this work more efficient the Pullman Company was requested to donate a car which would be used for purposes of instruction and also to carry assistance in case of mine disasters. There was some

delay in the delivery of the car and meanwhile the government had provided two cars for the purpose requested.

Finally the promised car was delivered and not being needed for its original purpose, it was determined by Major Lynch to use it for railway and industrial instruction.

The first tour of a railway for purposes of first aid instruction by the American Red Cross, was made over the Rock Island lines in the early part of 1911 with Dr. M. J. Shields in charge of the car.

The first demonstration was made to the men at the Forty-seventh Street Shops, in Chicago, and resulted in the organization of a class which was instructed by Dr. Gentles, who, on account of his interest in this work, was appointed a local representative of the American Red Cross in Chicago.

This class was examined by Dr. F. E. Pierce, chief surgeon of the Lake Shore and Michigan Southern Railway. At the meeting of the Surgical Association of the Rock Island Lines held at Colfax, Iowa, September 13, 1911, a team of four members of this class gave a demonstration in first aid to the injured and on that date the members of the class received their diplomas, the first issued to railway employes by the American Red Cross. The same team gave a demonstration at the last meeting of this association.

Since the completion of the tour of the Rock Island Lines the American Red Cross Car has toured many of our railways and I hope this has resulted in the inauguration of systematic first aid instruction.

On the Rock Island Lines classes have received diplomas in several different states and the beneficial results have been noted by officials of the operating and claim departments, so that within the last two months I have received requests from operating officials at these different points to organize classes. So far only shop men have been instructed, for they are more easily accessible than trainmen whose irregular hours of work make them hard to arrange classes for, but it is intended later to extend the work to trainmen.

Through Dr. Gentles' renewed interest in first aid instruction since his association with the American Red Cross, a considerable impetus has been given the work in Chicago. One course was given in the public library as a part of the Chicago Medical Society's public lecture course, and nearly one hundred received diplomas. The South Park Policemen have been instructed. The Boy Scouts of America have proved a good material for instruction and I witnessed a most creditable competitive drill last winter between the best six teams in Cook County.

This is not a matter of only temporary interest, but with the national government behind it, first aid instruction will continue to spread and our Association should do its share in promoting it.

There are in this country a few hospital cars fully equipped. The

cost of such a car, which I have seen stated as fifteen thousand dollars, makes it practically impossible to provide enough of them to cover the mileage of an average railroad. In this connection I want to mention an experiment which we are trying on the Rock Island Lines.

In order to better care for the men working on the extension of our track elevation in Chicago we have fitted out an old box-car at an expense of less than three hundred dollars and have made a really creditable first aid station out of it. Although this car was intended only for this one piece of work, the thought immediately suggested itself to those who inspected it that such cars would be valuable if kept at division points to be taken out on the line in emergencies.

As to the value of intelligent first aid, no argument is necessary here, as every surgeon knows how much it means to the patient to be properly handled between the time of receiving his injury and the time when the surgeon reaches him.

"SAFETY FIRST."

As in medicine we no longer limit our activities to the management of disease but go a step further back and try to prevent disease, so in surgery we naturally turn from first aid to the prevention of injury. "Safety first" stands in the same relation to traumatic surgery that preventive medicine does to medicine.

I doubt whether we realize how rapidly the movement for the prevention of injury among those in dangerous occupations has grown. In the matter of first aid instruction the surgeon has naturally been called upon to lead, but in the prevention of injury the railways have attacked the problem through other departments. The movement will succeed, even if we never take a hand in it, and yet it is so laudable a cause that we ought to do our share in it.

We have already done something in this line. In the October, 1911, number of our *Railway Surgical Journal* you will find an article by Dr. T. H. Wagner on "The Prevention of Accidents and Their Consequences." and in the *Rock Island Employes' Magazine* for August, 1913, is an article on "The Care of the Eyes," urging the use of goggles, by Dr. Frank Allport. The management of the Rock Island Lines obtained reprints of the former article and distributed them among all officials having charge of men in dangerous occupations. Many times I have had letters from surgeons on our staff calling attention to dangerous conditions and these letters when referred to the proper officials have always received attention.

During the last week in September of this year four great bodies met to devise ways and means of conserving human life and limb, the National Council of Industrial Safety, the American Mine Safety Association, the American Railway Safety Association, and the Safety Commission of Cook

County and Chicago. This will give you an idea of how widespread the movement is.

When we men of medicine and surgery start to investigate a subject in our line of activity, we first search the literature to see what has been done to date. Has the "Safety First" movement a literature? I find that it has. Journals, such as the *Survey*, which devote themselves to industrial problems, are full of it. The *Railway Record* began in September of this year to devote one issue a month to the subject. Most of my information I glean from this source and from Mr. L. F. Shedd, General Safety Supervisor of the Rock Island Lines.

Some of us remember the old style of reckless railroad employe, of a generation ago. He gloried in his recklessness and to add to this tendency he felt it his duty to resort frequently to strong drink. He took chances just to show that he was not afraid. In the old days of link and pin couplers every switchman was instructed to carry a stick with which to raise the link without going between moving cars, but no switchman ever used one, because he would be considered a mollycoddle if he did. Instead, he ran between the cars and, if nothing worse than the loss of a few fingers resulted, he was getting off luckily, because his limbs and even his life were risked. A misstep caused by a piece of coal or bit of ice would throw him under the wheels. He gloried in stepping on to the footboard of an engine coming toward him and taking other unnecessary chances, so that I heard a yardmaster say that a man working in the yard had about the same chance of escaping injury as a soldier in active service in time of war.

This type is destined to disappear entirely just as the picturesque cowboy is now almost a memory. If it is known that he drinks, he will be discharged, and if he is caught in reckless acts he will be confronted with "Safety First" regulations forbidding such conduct.

As nearly as I can learn, this movement, as far as railways in this country are concerned, began on the Chicago and Northwestern Railway in 1910. In the short space of three years it has grown so that sixty-eight railroads with a mileage of 183,596 miles in the United States and Canada have adopted it.

On these railroads the safety first movement has become a regular organization with a responsible man at the head. In some cases, as for instance, on the Rock Island, this official gives his whole time to the movement. On some lines the head of the safety first movement occupies some other position at the same time. This officer is known as Chairman of the Central Safety Committee, Superintendent of Safety, General Safety Supervisor, or some other similar title. The work is done through committees, which, on the Rock Island, which furnishes a good sample of the

organization of all Safety Bureaus, are constituted as follows: First, a general committee of which the Assistant to the Second Vice-President is Chairman, next three District Committees, the Chairman of each being the Assistant General Manager of the District, next twenty-one Division Committees, Superintendents of the Divisions being the Chairmen, and lastly ten shop committees, of which the General Shop Foremen are Chairmen. The membership of these various committees is approximately 600. On each Division Safety Committee and each Shop Safety Committee, every branch of work is represented by an employe, so that the movement is not one of the officials alone, but is more largely a movement of the employes themselves. The Division and Shop Committees have a meeting every month. The General and District Committees less often.

Each employe is urged to use care and discretion in the performance of his duties and to, as far as practicable, arouse a like spirit in his fellow workmen. Committee members are especially charged with the work of investigating and reporting at their various meetings, or to the proper officer, such cases or conditions as need prompt attention with the view of reducing a hazard; they should also impress upon their fellow workmen the fact that the company desires each of its employes to get the "SAFETY FIRST" habit.

As a first result of the movement, the following steps were taken:

Cleaned up the property generally.

Made conditions safe for workmen by:

Picking up loose obstructions.

Levelling walks.

Installing lights, railings, steps, walks, covers.

Removed everything from passage ways at shops.

Guarded machines generally.

Talked "Prevent Injury" to everybody.

Removed improper clearances.

Changed clearance standards.

Later on, under the direction of the General Safety Supervisor, public meetings were held in various localities and at these moving picture films embracing railroad scenes were shown. These illustrated the dangerous and safe ways for employes to conduct themselves in actual service. These pictures have been seen by 20,000 people in the last twelve months and meetings have been attended by the public, in addition to employes. The Rock Island Safety Bureau was organized August 1, 1912, and already results are very evident in reduced number of deaths and injuries to employes and passengers.

The organization on the Rock Island and the results obtained, I believe, are fairly typical of what other roads have done in the same line. The interest taken in this movement, both by officials and employes is very great, and the Safety First numbers of the Railway Record show a

large number of communications from both sources. To quote Mr. R. C. Richards, Chairman of the Central Safety Committee of the Chicago & Northwestern Railway:

"There is no movement in the annals of railroad history that has spread so fast and so far as this Safety movement. In three short years it has gone from the Atlantic to the Pacific, from the Gulf to the Great Lakes. It has reached over and touched Great Britain and Japan."

Now, as you will see, this movement is well organized and is doing valiant work practically with no help from the railway surgeons, but I believe we should give this our encouragement and help spread the sentiment wherever opportunity offers in favor of cautiousness, as against recklessness. Many of our surgeons come in contact with the employes in such a way that they can wield considerable influence in this direction, but there is one phase of the question where it is preeminently the duty of the railway surgeon to counsel the men, and, that is, in regard to advising them to keep in good physical condition as a means of preventing injury. We all know that a healthy and a well rested man has more accurate control of his muscles and better control of his mind than a sick or tired man. Employes therefore should be advised to keep regular hours and get the proper amount of sleep. Above all I believe that we should preach temperance to the employes whenever opportunity offers, because, we all know that alcohol does not give strength or add to our endurance, but simply dulls our mental processes and muscular control and by so doing makes us less able to avoid injury.

It would be an aid to this movement if a preliminary examination were made of all applicants for employment, just as it is now made for applicants for positions in the train service. The surgeons can also assist by recommending the retirement of men whose physical condition has become such as to make them unsafe in the positions which they occupy. Sometimes it would be advisable to recommend a temporary change in occupation for an employe in order to get him in better physical condition.

While we are not expected to lead in this movement I believe we have a duty and that is to get behind it and push. I would recommend that at the next meeting of this Association, we invite the Safety Supervisor of one of our railroads to put this matter before us and show us the progress that has been made up to that time.

PYOPHOBIA—AN UNREASONABLE FEAR OF PUS IN INFECTED WOUNDS.*

By CHAS. A. PARKER, CHICAGO.

Since the recognition of the causative role of bacteria in disease, the laudable desire to destroy or control them has naturally been uppermost in the minds of all progressive surgeons, until now it is almost a universal practice to employ some antiseptic or irritant solution for cleansing the surfaces of wounds or irrigating cavities. In fact, so strenuously is this practice carried out by some that it becomes with them a phobia, or as the title of my paper indicates, a pyophobia, and the surgeon a pyophobiac. We have all probably been more or less guilty of this offense into which we were led by our training and association, and it is still difficult for many to resist the subtle coercion of habit on arriving at the years of maturer thought and observation.

It is the object of this paper to protest against this illconsidered abuse of the long suffering tissues. A visit to the various hospital dressing rooms will abundantly suffice to show the prevalence of this fear of pus under any and all circumstances. Here will be seen a patient stoically submitting to the irrigation of an abscess cavity with a solution of bichloride or iodine; there a child shivering in terror from some irritant used in cleaning a burn; and another quivering from the pain of alcohol in some open wound. And so from one to the next, only varying the kind of irritant according to the custom of the hospital, with the well-intentioned general object of killing germs or destroying pus and ultimately accomplishing the most good for the sufferers under their care. Most of this misguided zeal is, however, more harmful than otherwise and our patients eventually recover in spite of the antiseptics rather than as a result of their use. Another evidence of the popularity of this measure is shown in the legion of drugs, liquids, powders, etc., that have been advertised, and the new ones that are constantly appearing, presumably in answer to the demand for something better than has previously been attained. Time and again a new one is heralded far and wide and in circles whose acceptance we have been taught reverently to respect, as the final triumph of the antiseptic art, and just so often have we been disappointed; till it is safe to say that up to the present time we possess no drug or other substance that at all satisfies the crucial test of the real and safe antiseptic, in that it destroys the bacteria without injuring the tissues. Of course I do not mean in any way to imply neglect of proper sterilization of the skin or other tissues in preparation for operations or other surgical procedures, my remarks here referring only to open wounds or exposed tissues. Nor is it my intention to interdict when indi-

*Read before the Chicago Medical Society, October 29, 1913.

cated—though we may differ widely on the indications—the use of antiseptics as irritants when the irritating, or stimulating, effect is the one primarily desired. Here, too, the stimulating idea is greatly overworked in the persistent use of various irritants, both chemical and mechanical, as the variously impregnated gauzes, canterizants, etc. Most of these are worse than useless.

As a stimulant to the formation of granulation tissue in infected wounds there is probably no more uniformly effective measure than the presence of the pyogenic bacteria themselves. Assuredly their presence is not desired, but when they come, uninvited, it is best to treat the condition with a proper understanding of the unwelcome relation.

The human organism has developed in constant association with pyogenic bacteria; but the natural advantage of the tissues over them has kept them in control and made the very existence of human life possible; and it is upon these tissues themselves with their natural or induced resistance that we must eventually depend for local defense in times of stress. The tissues must be conserved; antiseptics do not conserve them.

Some infections will be uncontrollable and fatal, but even then the application of substances known to lower the vitality of the tissues is not justifiable in hastening the threatened issue.

Let us consider somewhat in detail in this relation the processes taking place in ordinary infected wounds to determine the correctness of the views here expressed.

PUS.

From all open wounds with loss of proper skin covering, as well as from many lesions of the skin itself, there exudes a secretion either as a direct result of the injury itself or as an incident in the process of inflammation or repair. Primarily this secretion may be sterile, but when it contains a sufficient number of dead cells, commonly associated with bacteria, and presents certain physical characteristics, it is called pus. This latter is the secretion covering most open wounds; the number remaining sterile is very small and will not be considered here. Pus is constantly repleted from the living tissues, from which it is generally very easily distinguished. There is probably very little difference of opinion as to the desirability of removing such obvious accumulations of pus, even if for purposes of ordinary cleanliness only, and this result may be obtained in various mechanical ways with little or no disturbing influence upon the underlying tissues. After the removal of the obvious pus, however, there remains a secretion whose character is by no means so plain. And here, just what tissue is to be considered alive, though containing some dead cells, and just what is to be considered dead, or pus, though containing numerous live cells, it is difficult if not quite impossible to determine. Such an exact line of

demarcation is not reasonably to be presumed, and does not exist. In all efforts toward the removal of this residual pus we must bear this in mind, and, from our knowledge of the action of local remedies, it is quite evident that we at present possess no means that directly accomplish just this and no more. When complete removal with sterilization can thus be obtained, even at the expense of some living tissue not of vital importance, means to accomplish this may be quite justifiable and indicated; but, in spite of a tremendous amount of effort and vast accumulated experience, it is still painfully evident that only rarely and under particularly fortunate circumstances is this desideratum attained and the attempt, as a rule, distinctly interferes with the normal process of healing. Perhaps some time we will have just such local specifics. Where important tissues are involved as the central nervous system we are equally helpless in attempts at sterilization and the process is complicated by special anatomical conditions. Fortunately, most infected wounds are of simpler tissues and their treatment is not so serious a matter, as we know that most of them heal.

The residual material consisting of serum and cells, some dead and some living, plus the bacterial elements, is not the serious disturbing factor we are wont to believe and for whose elimination no measures, however vigorous, appear at times to be too radical. While, on account of its bacterial elements, it does not furnish the ideal conditions of growth, yet, being freshly derived from the fluids and cells of the tissues themselves it does furnish the most nearly normal local secretion and consequent protection it is possible for the wound to have; any added dressings should assist in this function by preventing its destruction by drying and conserving the heat necessary for its best action.

Pus is not a definite pathologic entity. The term is convenient for clinical purposes, but, like many other terms in developing sciences has become entirely too general to be of any value in studying fundamental processes according to modern scientific conceptions. Bacteria do not distinguish it, as we have sterile pus; dead cells and debris are present in all aseptic wounds; the quantity of fluid is an equally variable factor, and it has no definite chemistry. It is only when it presents a combination of elements producing a rather wide range of physical qualities that it is easily distinguishable and definitely pus.

This need not be considered nihilistic or as advocating a "do nothing" policy in the face of frequently great danger, as such operative means as are necessary will still be employed and other effective measures in the way of dressings and protection to develop the highest physiologic resistance of the tissues themselves will also be at our command.

The primary sterilization of wounds and the preparation of tissues for operation by aseptic and antiseptic methods will still be effective in

their recognized sphere as the priceless heritage of modern surgery. There must be no deviation from their precepts. But it is not to these conditions that the foregoing remarks are intended to apply. The aseptic non-irritating dressing, variously modified is advocated as adapted to all wounds, while the antiseptic dressing is rarely suited to any.

The persistent aggravation of wounds with irritant measures is an abuse that should no longer be permitted.

Detailed instances of abuses could be repeated indefinitely but the prime object of this paper is to direct as forcefully as is consistent with brevity the attention to the fundamental issues involved in the firm belief that their better understanding will lead to more consistent treatment.

The publication of the sentiments expressed in this paper has been condemned by high editorial authority as likely to be productive of more harm than good in that it "might make the careless surgeon even more indifferent." Being so thoroughly convinced of the fundamental importance of the tenets here set forth, which are no longer novel to many surgeons, I believe, on the contrary, that their wide dissemination and appreciation can have only the effect of materially increasing the efficiency of every one who takes them into thoughtful consideration. And it is with this self-justification that I have the present temerity to thus openly advocate them before this society.

Don't be a pyrophobiatic.

THE TEACHING OF SEX HYGIENE IN THE PUBLIC SCHOOLS.
ADDRESSES DELIVERED BEFORE THE CHICAGO MEDICAL SOCIETY, OCTOBER 1,
1913, AT A REGULAR MEETING WITH THE PRESIDENT,
DR. CHARLES P. CALDWELL, IN THE CHAIR.

SOCIETY OF SOCIAL HYGIENE.

By PROF. C. R. HENDERSON, UNIVERSITY OF CHICAGO.

(President of Chicago Society of Social Hygiene.)

I shall say very little about the mere organization, the institutional form of our Society of Social Hygiene. Members of the Chicago Medical Society will remember that quite a number of years ago this society instigated the organization of a group for study and for giving instruction in regard to sex hygiene, and through these years some work has been done. Hundreds of thousands of very brief, pointed, and, I believe exact and reliable statements, have been given to some hundreds of thousands of young men in our colleges throughout the United States, and also in foreign cities; and since Dr. Belfield is responsible for most of this work I take occasion to give him full credit and to express my gratitude to the Chicago Medical Society for the honor and confidence which they have shown to me, and for the privilege they have given me to work in this direction with one of their honored specialist representatives. I believe a great deal of good has been done, and that we are working on the right line. I cannot go into details, but call attention to one point only: I think that teachers would generally agree, and men of experience and women of experience also, that after we have said what is necessary on this subject, the less said in addition to that the better. That is the advantage of the publications of the Chicago Society of Social Hygiene over a great many others (without invidious comparison); it is a positive advantage that our papers have gone straight to the point, stated it clearly and in language that could be understood, but have not dwelt upon the subject so as to arouse the imagination. I believe that we have opened the eyes of young men and raised their standards, at the same time calling their attention to the dangers to which they expose themselves and friends and the community if they engage in illicit intercourse.

On the basis of the experience of these years of working together, I want to express two or three ideas. First, I will put myself on record as favoring the purpose of those who are seeking to give education—and I am choosing my word very carefully—on this subject in our public schools, families, churches, and everywhere else. I do not like the words “sex education.” Perhaps “education with reference to sex” would be still better; but the whole treatment of the subject is evidently transitional. I hope the time will come when the word “education” will cover all that boys and girls, and young men and young women, older men and older women,

ought to know. That nothing will be omitted; that everything will fall in its place in the teaching of biological science, morals and physical training, and in the teaching of religion, that everything that interests humanity will be taught in its place and in its due proportions.

I think the whole difficulty has arisen because of false notions in regard to education in the past, and that there ought not to be, and in the future—perhaps not far away—there will be no such thing necessary as “sex education.” It is my profound conviction that the time will come when Boards of Education the world over will seek to develop and direct to their true goal all the normal interests of humanity. Instruction on this subject must of course be given by competent persons of proper character as well as of adequate information. That is essential to the success of our enterprise, and any other persons than that would do the cause a great deal of harm. I believe that the original motive of the medical society is one that ought to be the motive of all of us—to protect people against infection, against the spread of loathsome and destructive diseases that come from prostitution and its consequences.

I want to express two words of caution, of warning, and to clear my own conscience of a sense of responsibility in regard to the whole matter. First, I want to say with all earnestness, as a teacher of young men and women, that instruction is the least part of education. You may, indeed, protect a great many people by telling them the dangers of certain courses of conduct, but if you can do nothing more than excite the physical fears by giving medical instruction, you have done nothing indeed, and sometimes harm; but you have not accomplished your full purpose, even as medical men, until you have gone further than instruction. Education means vastly more than that. It means the shaping of ideals, a play upon the feelings, such a kind of education as will make the boy chivalrous, knightly, and regard the interests of every daughter of Adam as the interests of his own sister, even if that daughter is a prostitute herself, a boy who will respect the ideal of womanhood even in those that we call fallen and outcast, who will be such a boy, such a lad, such a young man that when he comes to be a man will be ashamed of himself if he even hints at the argument that it is necessary, in order to protect wife, sister or daughter from these great evils, that we must have a class of prostitutes. A second word of caution and warning must be spoken, though the danger of being misunderstood at this point is great. A man whom you honored as a fellow physician, and whom you still honor, for though dead, he lives, said to me: You make a great mistake if you merely dwell upon the medical side of this question. There are a great many other sides—the moral and the religious.

Much as you and I believe in the importance of protecting people

The first of these was the discovery of gold in California in 1848. This discovery led to a great influx of people to California, and the state became a free state in 1850. The second was the discovery of gold in Nevada in 1859. This discovery led to a great influx of people to Nevada, and the state became a free state in 1864. The third was the discovery of gold in Colorado in 1858. This discovery led to a great influx of people to Colorado, and the state became a free state in 1876. The fourth was the discovery of gold in Idaho in 1860. This discovery led to a great influx of people to Idaho, and the state became a free state in 1890. The fifth was the discovery of gold in Montana in 1862. This discovery led to a great influx of people to Montana, and the state became a free state in 1889. The sixth was the discovery of gold in Wyoming in 1869. This discovery led to a great influx of people to Wyoming, and the state became a free state in 1890. The seventh was the discovery of gold in Utah in 1871. This discovery led to a great influx of people to Utah, and the state became a free state in 1896. The eighth was the discovery of gold in Arizona in 1876. This discovery led to a great influx of people to Arizona, and the state became a free state in 1909. The ninth was the discovery of gold in New Mexico in 1878. This discovery led to a great influx of people to New Mexico, and the state became a free state in 1906. The tenth was the discovery of gold in Texas in 1881. This discovery led to a great influx of people to Texas, and the state became a free state in 1845. The eleventh was the discovery of gold in Louisiana in 1883. This discovery led to a great influx of people to Louisiana, and the state became a free state in 1803. The twelfth was the discovery of gold in Mississippi in 1885. This discovery led to a great influx of people to Mississippi, and the state became a free state in 1817. The thirteenth was the discovery of gold in Alabama in 1887. This discovery led to a great influx of people to Alabama, and the state became a free state in 1819. The fourteenth was the discovery of gold in Georgia in 1889. This discovery led to a great influx of people to Georgia, and the state became a free state in 1788. The fifteenth was the discovery of gold in Florida in 1891. This discovery led to a great influx of people to Florida, and the state became a free state in 1845. The sixteenth was the discovery of gold in South Carolina in 1893. This discovery led to a great influx of people to South Carolina, and the state became a free state in 1776. The seventeenth was the discovery of gold in North Carolina in 1895. This discovery led to a great influx of people to North Carolina, and the state became a free state in 1776. The eighteenth was the discovery of gold in Virginia in 1897. This discovery led to a great influx of people to Virginia, and the state became a free state in 1776. The nineteenth was the discovery of gold in West Virginia in 1899. This discovery led to a great influx of people to West Virginia, and the state became a free state in 1863. The twentieth was the discovery of gold in Maryland in 1901. This discovery led to a great influx of people to Maryland, and the state became a free state in 1776. The twenty-first was the discovery of gold in Delaware in 1903. This discovery led to a great influx of people to Delaware, and the state became a free state in 1776. The twenty-second was the discovery of gold in Pennsylvania in 1905. This discovery led to a great influx of people to Pennsylvania, and the state became a free state in 1776. The twenty-third was the discovery of gold in New Jersey in 1907. This discovery led to a great influx of people to New Jersey, and the state became a free state in 1776. The twenty-fourth was the discovery of gold in New York in 1909. This discovery led to a great influx of people to New York, and the state became a free state in 1776. The twenty-fifth was the discovery of gold in Connecticut in 1911. This discovery led to a great influx of people to Connecticut, and the state became a free state in 1776. The twenty-sixth was the discovery of gold in Rhode Island in 1913. This discovery led to a great influx of people to Rhode Island, and the state became a free state in 1776. The twenty-seventh was the discovery of gold in Massachusetts in 1915. This discovery led to a great influx of people to Massachusetts, and the state became a free state in 1776. The twenty-eighth was the discovery of gold in Vermont in 1917. This discovery led to a great influx of people to Vermont, and the state became a free state in 1776. The twenty-ninth was the discovery of gold in New Hampshire in 1919. This discovery led to a great influx of people to New Hampshire, and the state became a free state in 1776. The thirtieth was the discovery of gold in Maine in 1921. This discovery led to a great influx of people to Maine, and the state became a free state in 1776.

The discovery of gold in California in 1848 led to a great influx of people to California, and the state became a free state in 1850. The discovery of gold in Nevada in 1859 led to a great influx of people to Nevada, and the state became a free state in 1864. The discovery of gold in Colorado in 1858 led to a great influx of people to Colorado, and the state became a free state in 1876. The discovery of gold in Idaho in 1860 led to a great influx of people to Idaho, and the state became a free state in 1890. The discovery of gold in Montana in 1862 led to a great influx of people to Montana, and the state became a free state in 1889. The discovery of gold in Wyoming in 1869 led to a great influx of people to Wyoming, and the state became a free state in 1890. The discovery of gold in Utah in 1871 led to a great influx of people to Utah, and the state became a free state in 1896. The discovery of gold in Arizona in 1876 led to a great influx of people to Arizona, and the state became a free state in 1909. The discovery of gold in New Mexico in 1878 led to a great influx of people to New Mexico, and the state became a free state in 1906. The discovery of gold in Texas in 1881 led to a great influx of people to Texas, and the state became a free state in 1845. The discovery of gold in Louisiana in 1883 led to a great influx of people to Louisiana, and the state became a free state in 1803. The discovery of gold in Mississippi in 1885 led to a great influx of people to Mississippi, and the state became a free state in 1817. The discovery of gold in Alabama in 1887 led to a great influx of people to Alabama, and the state became a free state in 1819. The discovery of gold in Georgia in 1889 led to a great influx of people to Georgia, and the state became a free state in 1788. The discovery of gold in Florida in 1891 led to a great influx of people to Florida, and the state became a free state in 1845. The discovery of gold in South Carolina in 1893 led to a great influx of people to South Carolina, and the state became a free state in 1776. The discovery of gold in North Carolina in 1895 led to a great influx of people to North Carolina, and the state became a free state in 1776. The discovery of gold in Virginia in 1897 led to a great influx of people to Virginia, and the state became a free state in 1776. The discovery of gold in West Virginia in 1899 led to a great influx of people to West Virginia, and the state became a free state in 1863. The discovery of gold in Maryland in 1901 led to a great influx of people to Maryland, and the state became a free state in 1776. The discovery of gold in Delaware in 1903 led to a great influx of people to Delaware, and the state became a free state in 1776. The discovery of gold in Pennsylvania in 1905 led to a great influx of people to Pennsylvania, and the state became a free state in 1776. The discovery of gold in New Jersey in 1907 led to a great influx of people to New Jersey, and the state became a free state in 1776. The discovery of gold in New York in 1909 led to a great influx of people to New York, and the state became a free state in 1776. The discovery of gold in Connecticut in 1911 led to a great influx of people to Connecticut, and the state became a free state in 1776. The discovery of gold in Rhode Island in 1913 led to a great influx of people to Rhode Island, and the state became a free state in 1776. The discovery of gold in Massachusetts in 1915 led to a great influx of people to Massachusetts, and the state became a free state in 1776. The discovery of gold in Vermont in 1917 led to a great influx of people to Vermont, and the state became a free state in 1776. The discovery of gold in New Hampshire in 1919 led to a great influx of people to New Hampshire, and the state became a free state in 1776. The discovery of gold in Maine in 1921 led to a great influx of people to Maine, and the state became a free state in 1776.

but she cannot lawfully sell a ring on her finger until she has acquired the greater worldly wisdom of twenty-one years. In nearly all our States a girl may lawfully sell her body two, five, ten, years earlier than she may sell any commodity having recognized value. These statutes, because they are legislative enactments by the people of our several States, must be accepted as official utterances of public sentiment. We are therefore driven to one of two conclusions; either that a majority of our people really believes that a girl can intelligently appraise the value of her reproductive functions from two to ten years earlier than that of anything else whatsoever; or we must conclude that a majority of our people regards promiscuous sexual indulgence among the unmarried, as one of the personal rights of men, with which the State may not meddle. I think we will all agree that the latter is the correct interpretation of these statutes.

Such public sentiment does not, in my judgment, arise from total depravity, original sin or viciousness; it is rather a recognition of the instinct common to animals and men to transmit life through promiscuous cohabitation. We all understand that the call of sex is the instinct to transmit life; but we do not all understand that this instinct impels animals to promiscuous cohabitation, although this is apparent in the sexual habits of the highest animals and savage men. It would be strange, indeed, if an instinct so supreme, so all compelling—the instinct for immortality—should limit the efforts of the male animal in its service to co-operation with but one female.

That the other instincts of our savage ancestors persist in us, is apparent in the brutal selfishness of the small boy; that this instinct for promiscuous reproduction also persists in us, is apparent in the love-making of that boy some years later.

In the thousands of years that lie between those savage ancestors and ourselves, men have learned that community life is possible only through repression of the instincts to murder, ravish, rob and steal, normal to savages; and they have advanced from promiscuous reproduction to group marriages, polygamy and finally monogamy, as the official sex relation; yet as the statutes mentioned indicate, we still recognize officially the instinct for promiscuous reproduction, except as it may be restrained through home and religious training.

Some of our people have awakened to the obvious fact that this policy is detrimental not merely to the individual, but to the State as well. For we have overwhelming evidence from many sources that our irresponsibles—the insane, imbecile, feeble-minded (including many criminals)—are multiplying far more rapidly than is the total population, (in Illinois apparently over three times as fast). We allow the physically diseased and mentally defective to procreate without restraint, and support their diseased

and defective offspring at public expense in costly and ever-multiplying asylums; in short we strive earnestly for the survival of the unfittest at the expense of the fittest, and we are thereby securing the deterioration of our people by committing errors at both ends of the line. Without further elaboration it is evident that this matter of procreation cannot safely be left, as heretofore, to the discretion of the individual, and that the instinct to procreate, like the instinct to steal, rob and slay, must be restrained and regulated by the State more intimately than heretofore.

Nine of our States have already enacted measures directed to this end; they endeavor to protect healthy stock from contamination by requiring evidence of freedom from transmissible disease as an essential to securing a marriage license; and they strive to restrict the production of defectives by authorizing the sterilization of such irresponsibles. These measures are admittedly experimental and incomplete; this is indicated by the experience of Oregon, which now requires sworn evidence of two physicians that the would-be bridegroom is free from transmissible disease. During the first three months of enforcement of this law the number of weddings in Oregon dropped to one-half the number celebrated during the same three months of the previous year; while in the States adjoining Oregon the number of weddings surprisingly increased.

The teaching of sex hygiene in our public schools is also an experiment. This I heartily welcome, not because of the assured benefit to the pupils themselves, but because of the assured benefit in awakening parents and public to the need of concerted action in restraining the instinct of promiscuous reproduction, with or without marriage.

The chief argument in favor of teaching sex hygiene in the public schools is the belief that "Knowledge is power." But knowledge is power only when directed by intellect, with which youth is not overburdened. The man behind the gun is quite as important as the gun. No teaching of facts can supplant or render less imperative the continual, confidential watchfulness of parents over their children.

PRACTICAL POSSIBILITIES.

By MRS. ELLA FLAGG YOUNG,

Superintendent, Chicago Public Schools.

Our Board of Education has done nobly in the last two years in the effort to assist with regard to this work. I should like to say to Dr. Belfield that he made the amount five thousand dollars (\$5,000) too small when he stated that the State of Illinois had not done anything toward improving the human breed in the last year. The Chicago Board of Education appropriated five thousand dollars (\$5,000) last year for lectures

to fathers and mothers on the question of sex hygiene. I regret to say that because doctors are very much like school teachers, are dilatory in making up their accounts, the speakers at these lectures did not present their bills promptly, and so some of them went over to this year's appropriation. As a result the 1913 appropriation will be fourteen hundred dollars (\$1,400) short.

In addition to the five thousand dollars (\$5,000) the Board has appropriated ten thousand dollars (\$10,000) for instruction in this subject in the high schools of the city during the year 1913. The plan is to give three lectures to groups of boys and groups of girls in the different high schools. In the first or trial year these lectures are to be given by members of the medical profession, and there, of course, we meet our first difficulty. Many of the medical profession have warned me that doctors state facts so coldly and so brutally that they may do great harm. We have, however, laid down two conditions with regard to the lectures to be given: First, there must be no doubt as to the medical attainments and standing of the men and the women who are to lecture; second, there must be something in the men and something in the women over and above and beyond the mere medical knowledge. There must be not only a high moral and spiritual nature, but there must be the power to talk to young people in such a way as to reach the best that is in them and cause them to think seriously, and nobly, and high-mindedly, of that which is laid before them.

I think with regard to the boys that it will be possible to secure men who can lecture to them in large audiences. Dr. Winfield Scott Hall last winter lectured to audiences of boys numbering 750. I have letters from fathers who were present at those lectures, thanking the Board of Education for having such a man, with such power, with such a personality, with such a grasp of the material which it is best to present to the boys, talk to them.

But I don't believe it is possible to take 750 high school girls and lecture to them. I am happy to say that the girls are still somewhat shy. By this I do not mean that the boys are bold, but there is a way that a man can come at a lot of men or boys that is different from the method with girls. Girls would be shy if a woman were to lecture to them on closely related personal matters in large numbers. At least, that is my feeling. I intend, therefore, to have the girls brought together in groups of fifteen or twenty, if possible, if the money is sufficient to do this. But we have twenty thousand boys and girls in the high schools in Chicago. Of course, there will be many who will not be present. Any parent who does not wish the son or daughter to attend may send a note to that effect to the school, and the child will be excused from attendance at the lectures. I suppose that during the first year about a thousand will

drop out, but that will still leave nineteen thousand. We have about an equal number of boys and girls in the high schools.

There are still other questions attending this matter, which are difficult to grasp. Two years ago I took the stand that it was not the business of the school to teach anything about this matter—that it was the business of the home and the church. To be Superintendent in a large city brings many conditions before one, and more and more do I realize that somehow we must get at the younger children. I know about coming at it from the biologic standpoint, but to put into the mind of the child thoughts on sex questions may in many cases lead to conduct which is most prejudicial. I know what I am saying. I am willing that you should say that I have not quite attained the twentieth century point of view in this matter. I believe that we must begin by instilling and developing a sense of the nobleness of the body and the absolute necessity of keeping it pure, and I don't believe that the sex question comes in there at first at all. But how are we going to do it with three hundred thousand children? It is said that the home should do it, but the home has not done it, and in a large percentage of cases, cannot. A school principal found that ten little girls were going to a lumber yard to meet a man, the father of a family. When the mothers were informed by the principal of what had been going on, what did they do? They slapped the girls for doing something that the principal wanted them not to do! What could those mothers do toward arousing a sense of personal purity?

Regarding high school girls, I don't believe that there are unchaste girls in the high schools, although it has become quite the fashion among some people to intimate that they are not uncommon. Our high school girls, just budding into womanhood should not be the subject of gossip by those who love to pass low suspicions around.

We send teachers to the Erring Girls' Home to teach—the public school is reaching out in everything. Our Board has a most liberal policy. The District Superintendent who goes to the Erring Girls' Refuge says that girls coming in very generally tell her that they are high school girls, though we find almost none whose work has been above the fifth grade. Of course, now and then a high school girl may fall, but, as a class, high school girls are not to be spoken of lightly.

How are we going to take the boys and girls, and teach them, and not set the school agog with the fact that the boys know that while we are talking to them about sex matters we are talking to the girls also about sex matters? I may be foolish in being uneasy about that, but how am I going to prevent the whole town being alive, and the boys and girls thinking, when they come out, "Now, they have been hearing about us"?

I assure you, it is a tremendous problem that lies before the schools,

and as a Superintendent I fully realize that we must do that which was said so finely by Professor Henderson, namely, we must develop in their minds and in their spirits that strengthening power which will protect them, and how far we are going into sex hygiene and going to push the word sex before them, I still question.

INSTRUCTION IN THE SCHOOL.

By DR. RACHELLE YARROS.

The more we study the subject of Social Hygiene, the more we realize how complex a subject it is. In dealing with it, we should bear in mind its two distinct aspects, viz: that which has to do with the present situation, and its bad results, and that which has reference to the training of the young, with a view to the gradual elimination of the ancient evil and many sources of diseases and pollution to which it gives rise. In connection with the former aspect, I know of no other class of people who can make a more substantial contribution to its solution than the physicians. I am glad to say that physicians in this country and abroad are waking up to their duty in this matter, as is shown in the active work done by them in various Social Hygiene Societies, and by the action taken by the International Medical Congress in London. In Great Britain, as you know, at the request of the leading physicians, Premier Asquith appointed a commission to study venereal disease and suggest remedies. These facts are of no small significance when we compare them to the general attitude of the profession a few years ago, which attitude was one of either absolute indifference or despondency based on the notion that nothing whatever could be done to check so ancient an evil.

Tonight we are, however, to discuss the teaching of sex hygiene in schools. On this matter I agree with Prof. Henderson that what we should aim at is not mere instruction in facts of sex hygiene, in the limited sense of the phrase as commonly understood, but education in a large sense. Instruction alone would no doubt have a certain value; by education we understand something more, something that involves the strengthening of the moral fibre of the young, the broadening of their view of life and the part that they are to play in it. In other words, we mean instruction touched with idealism, morality and poetry. In the words of Dr. Albert Mall, "Enlightenment should, as it were, become engrained in the flesh and blood so as to influence the action, even unconsciously." A girl brought up in this way will defend herself instinctively against the wiles of a seducer; but only by such education, by one which is not confined to the mere imparting of information, can we produce in the girl greater power of self protection and more enduring self consciousness.

There is considerable doubt and fear even among progressive people regarding the effects of teaching sex hygiene in the schools. In my judgment, these fears are largely unfounded, but even if this were not so, I should still feel that we really have no choice in the premises. The old policy of silence is an utter and wretched failure. We know that thousands of innocent young women are yearly infected by venereal disease, by the husbands whom they love and trust, with the result that they not only suffer severe personal injuries, but a large number of them are deprived of the great joy of motherhood. We also know that in this country, or perhaps I should say in this day all over the world, parental control and close supervision of the young are reduced to a negligible degree. We see hundreds of girls daily without chaperonage, in factories, stores, offices, theatres, dance halls and ball rooms, surrounded by all kinds of men, and we know that in many cases these conditions lead to disastrous physical and moral results. A large number of girls are yearly seduced, chiefly because of their complete or partial ignorance, and inability to protect themselves. Evidence on this head every physician can furnish in abundance. Many heart-rending stories of deception and betrayal may be told, and in each case the same cry of the unhappy victim, rich or poor, "I did not really know what I was doing." The Social Workers, the Juvenile Court and Protective Associations, the Homes for Delinquent Girls and Outcasts, etc., teem with similar evidence. It is idle to speak of a radical change in our industrial and social life. The freedom of intercourse that I spoke of is inevitable, and the tendencies are towards greater intermingling of the sexes. Is it not a matter of absolute necessity, that with this freedom should go a greater understanding of dangers to which girls and young women are exposed? Should we not make every effort to enlighten them in a way which will strengthen their character and self control?

Let me refer to two particular points in connection with teaching social hygiene to girls. There are people who recognize the necessity of giving such instruction to boys, but resent greatly the slightest effort to give similar instruction to girls. The cry is that it would rob them of their beautiful innocence. This cry is very familiar. We have heard it times without number in connection with every movement designed to extend the educational, professional and other opportunities of women. There is always the same fear, that they will lose their femininity and charm, or that they will be unsexed. It is high time to drop such trivial objections. Whatever temporary change we may observe in individuals or groups as a result of a new departure it is purely superficial. Essentially the sexes remain what nature has made them. The educated woman is still a woman with all her qualities, and if you please, weaknesses. Intelligence does not affect instinctive characteristics. The second point was

alluded to by Dr. Belfield in his statement of the biological truth, that woman has developed greater self control in sex matters than man. This fact deserves special emphasis here. This superior self control in woman may be and should be utilized to much greater extent than it now is, not only in affecting her own conduct, but in elevating and refining that of the young man she comes in contact with. If this superior self control she possesses were strengthened by intelligence and reason, its power would be greatly enhanced. We should have a condition very different from that which now exists, where we find respectable girls in all classes of society, flirting with young men to the very limit, thereby exciting their sexual instincts, and while they derive from it a certain amount of innocent pleasure, the boys are started by it on the downward path.

Another argument that is brought forth by opponents of sex teaching is that it is likely to excite a dormant instinct and intensify the very mischief that it is sought to prevent. This would be a valid point if the mind of the average adolescent boy or girl were in fact a blank. This, however, is not the case. At a certain age the natural curiosity if not satisfied, develops into a morbid state of mind. Information is sought in various mysterious ways, knowledge is collected from all kinds of sources, and is frequently absolutely wrong. Such knowledge and wrong information are frequently responsible for vicious habits and thoughts. Finally, when we come to consider the whole matter carefully, the objection is not so much to the teaching of sex hygiene, as it is to the methods, time and place. As to methods sufficient has been said to indicate that facts taught in a scientific manner, would not hurt the child, as has been already proven, wherever classes have been conducted on botany, zoology and biology. To teach natural science as the great naturalist Fabre does in his books, which are permeated with beauty and poetry, would not only benefit the child, but prepare it for further study of the fact of life with the same spirit. As to time, Dr. Mall says: "The matter and manner of our communications must be appropriate to the age of the child with which we are dealing. Speaking generally it may be said that biology and physiology of reproduction may be described at a comparatively early age, but that cautions regarding bad personal habits should not be given, in the average case before thirteen or fourteen, and instruction about the risks of venereal infection should be deferred until later."

It is suggested that teaching of sex hygiene should not be carried on in the school, but should be the province of the home, because of the special knowledge that parent is supposed to possess of the temperament of the individual child. Nobody denies that the home would be the best place for such teaching and much other teaching besides, if all parents or even if a considerable number of them were fitted to perform this service for

their children. But what are the facts? How many parents are fitted? And even those who have the requisite knowledge are for the present themselves far too self conscious and conventional to attempt it or do it successfully. Many mothers, among the best, have confessed that they do not know how to begin or if they do begin that they shrink from carrying it candidly to proper conclusion. Then think of the large number of parents who through ignorance, absolute indifference or lack of time, have not and cannot give this necessary knowledge to their children. The question comes back to us. Where but in the school will the great majority of children receive the instruction? The giving of such instruction in the school does not imply that we should be content with school teaching alone. By all means let us educate the parents as well as the children, because to the extent to which the home influence reinforces the education or moral teachings of the school, to that extent may we expect development of real character and strength. We ask the school to co-operate with the home instead of replacing it. We need both of these great factors to work side by side in the effort to solve this most complicated and vital problem.

INSTRUCTION IN THE HOME.

By REV. JOHN W. MELODY.

It might seem desirable that the practical unanimity by which the discussion thus far has been characterized should continue uninterrupted. It may, however, add a measure of zest and piquancy to our symposium if a discordant note is sounded, and that note with all respect I am going to sound. For with the essential content of the preceding addresses I am constrained to say I radically disagree. Upon the question of the ravages of sexual immorality we need not here enter. The statistics that give only an approximate estimate of the physical evils due to the vice, enable us to catch but a faint idea of its moral devastation. The disease cries for a remedy, and, therefore, every man and woman bending his or her energy to its amelioration must needs gain our applause. But the best of intentions cannot secure adequacy of means and remedies and the means and remedies proposed by our hygienists to meet the sexual excesses that we all deplore are, in my opinion, quite inadequate.

Before addressing myself to the phase of the subject assigned me, I would ask to be allowed to set forth two cardinal principles that must underlie every sane and efficacious effort to cope with this evil. And the first is that mental enlightenment—mere knowledge—is not and cannot be a sufficient moral deterrent. Knowledge is illuminative, not operative. It gives light, it does not impart power. Right here I must differ with

Doctor Yarros. As a priest, I have received the stories of sinful men and women, and my experiences forces me to say (and I know this experience is shared by all my brethren) that practically none of these could adduce as an excuse for their sin an ignorance of the consequences that ensued upon it. No, we must look for the remedy against sexual impurity in moral strength and consequently in the mastery of the will over the sensuous appetite. This entails, however, a constant and unremitting warfare. For while the rational faculty would seek what redounds to the weal of human nature as a whole, the lower appetites, regardless of this general welfare would strive to indulge unrestrained the gratification of the senses. Hence it is that "the flesh lusteth against the spirit and the spirit against the flesh." The unruly desires of the "members" against the "mind" is specifically known as concupiscence and though declared to be sin by Luther and the Reformers it is not such. It becomes imputable as moral wrong only when it gains to its movements the consent of the will. And here I come upon the second of the underlying principles to which I have referred. It is, that in this conflict between the higher and lower faculties the will can hope to escape being caught up and taken captive, not by direct assault or repulse, but only by being diverted from the temptation. Now, I am not here adducing any recondite principle of mystic theology. I am stating a principle of accredited psycho-physiology.

For the effect of sex instruction is to give rise to sensuous images in the fantasy, tending to react on the whole organism. Ordinarily it is through the stimulation of the imagination that the sexual passion is aroused. And in the case of the young in whom the emotional nature predominates and in whom the will resistance is weak and halting, the impressed phantasy cannot but result in a titillation of the senses that will gain the consent of the will before the evil effects of passion are realized. Now this is not the outline of a pathological process but of a procedure absolutely normal. "The cleanest boy and girl," says Professor Munsterberg, of Harvard University, "cannot give theoretical attention to the thoughts concerning sexuality without the whole mechanism for reënforcement automatically entering into action." We must recognize, then, because of this power of suggestion that the evil of sexual immorality calls for treatment distinct from what we may effectively employ against the physical evils of alcoholism and tuberculosis for instance. Though in the case of confirmed alcoholism the medical practitioner need not be told of the advisability of following a method of indirect attacks upon the evil he would combat. He will not tell his patient to face the glass of whisky and bravely push it aside. No, but he will endeavor to arouse in the poor victim thoughts thoroughly unrelated to the latter's condition. He will prescribe that in which only victory over the masterful enemy can be

found—flight. Because of the insidious warfare of the spirit against the flesh and the better to win for the former, a more effective and lasting dominancy there has ever existed in the Christian Church men and women dedicated to a life in which even many of the legitimate promptings of the flesh were denied. And here I am glad to take occasion to refer to the service of the Christian ascetics. Dr. Belfield has paid a high tribute to the Puritans, declaring that they were the first of the great influences that made for the purity of the monogamic relation. But while as an American I have a meed of praise for the Puritans I do not hesitate to declare that long before the Puritan was heard of there existed in the Christian ascetics men and women who gave such examples of sexual purity who so showed forth the power of the spirit over the flesh that they were an agency making for the sanctity and chastity of marriage the greatest the world has ever known.

As the best natural safeguard against sexual immorality is distraction we should come to realize the role played by the sense of shame. We hear much of prudery and in the condemnation meted out to this false sentiment I fully concur. But if there is a spurious there is a genuine shame and I look in vain in the writings of our hygienists for a due recognition of this sentiment as possessed of a character at all worthy. It would seem that by giving shame a bad name our hygienists could hope thoroughly to discredit it. Now the instinctive character of this sense should be accepted as a priori evidence of its high value. We recognize such purpose in the case of other deeply rooted instincts. We know, for instance, that reason demands that every individual should take all available means to preserve his life. Yet over and above this prescription is the impulse of instinct supplying the deficiency which in many a contingency would arise from the tardy workings of the higher faculty. So in the instinct of shame, we should find a preservative of purity, a preservative which reason unaided would often be too slow to afford. This in fact is the case. For this instinct puts a check to the freedom of speech and action which would incite to passion before the warnings of reason could be heard.

I have said that the question of combatting sexual immorality involves primarily a question of power. As such it implies the adherence of our will to the good. But by the good I do not mean what is ordinarily accepted by the hygienist. I mean obedience to the form prescribed by a Personal God—that obedience spoken of by the Apostle when he writes to the Thessalonians, "This is the will of God, your sanctification: that you should abstain from fornication, that every one of you should know how to possess his vessel in sanctification and honor, not in the passion of lust like the Gentiles that know not God." As correlative with the fore-

going then occurs the thought of sin. And it is precisely here that we come upon a notion of which our frail youth stand eminently in need. Yes, before all considerations drawn from sociology, psychology, physiology and pathology must be the constraining thought that "neither fornicators nor adulterers nor the effeminate nor liars with mankind shall possess the Kingdom of God."

I applaud the opinion and sentiments expressed by the first speaker on the program (Professor Henderson). He sounded a note as true as it is high when he declared that this question was preëminently a moral one.

And now for the instruction to be given in the home. I have been long coming to this particular aspect of the question because in the light of the general principles which I have been at pains to set forth is to be seen what I would say in addressing myself to this special phase of the subject assigned me.

I do not hesitate to say that the instruction in sex matters to be given in the home is not at all to be of the extensive and elaborate kind, that we might be led to think was necessary from the present literature on the subject. We have seen that education to purity involves primarily and essentially a question of power—a power which is to be developed not so much by the exercise of strength elicited only when necessary to resist the rebellion of sexual passion but by a larger round of habitual self restraint, issuing in an ever-growing sovereignty of the moral faculties. The regime submitted by many of our hygienists regarding diet, baths, out-door exercise, regular hours, sleep and personal appearance must, therefore, be heartily approved. Besides its undeniable good effect on physical health such a discipline makes for the upbuilding of moral character.

Of course the critical age of puberty calls for especial attention and guidance. Understanding sufficiently the nature of the new phase that life takes on at this period, the sympathetic parent will strive to prevent the flood of vague feelings and emotions aroused in the child from taking the morbid bents to which they would often incline. Again the possible disquietude caused by the first appearance of certain physiological processes will be duly allayed. The consequences following upon the indulgence of the secret sin will be made known, as well as those resulting from certain impure connections, though for this anything like scientific discursiveness is uncalled for. Such is the amount of direct instruction supposing the moral character otherwise developed that will ordinarily be needed.

Ladies and Gentlemen, I appreciate the honor accorded me on being asked to address the members of the Chicago Medical Association. I realize the deep concern that the medical profession has in this subject. And so I will be excused if I make bold again to submit before the Association, the

principles, that intellectual enlightenment is not of itself an adequate moral deterrent, that the effectual way of overcoming the alluring temptations of the flesh is secured by distraction, by diversion, but above all that this question is essentially a moral one involving not merely considerations of physical sanitation but the responsibilities inculcated by the dictates of positive religion.

\$2 A Year in Advance

Single Copies 20 Cents

The
CHICAGO MEDICAL RECORDER
and
JOURNAL OF THE MEDICO-LEGAL SOCIETY
NEW SERIES

PUBLISHED MONTHLY
PULLMAN BUILDING, CHICAGO, ILLINOIS

Editorial Board

DR. E. W. ANDREWS
DR. FRANK T. ANDREWS
DR. WALTER S. BARNES
DR. W. L. BAUM
DR. CHARLES C. BEERY
DR. R. W. BISHOP
DR. JAMES BURRY
DR. HENRY T. BYFORD
DR. FRANK CARY
DR. A. CHURCH

DR. E. J. DOERING
DR. H. H. FROTHINGHAM
DR. L. A. GREENSFELDER
DR. JUNIUS C. HOAG
DR. FRANK S. JOHNSON
DR. JAMES A. HARVEY
DR. FRANKLIN H. MARTIN
DR. JOSEPH MATTESON
DR. FREDERICK MENGE

DR. CHAS. H. PARKES
DR. SAMUEL C. PLUMMER
DR. ARTHUR R. REYNOLDS
DR. LOUIS E. SCHMIDT
DR. OTTO L. SCHMIDT
DR. D. A. K. STEELE
DR. HOMER M. THOMAS
DR. THOS. J. WATKINS
DR. RALPH W. WEBSTER

Committee on Publication

E. J. DOERING HENRY T. BYFORD A. R. REYNOLDS

Volume XXXV.

CHICAGO, ILL., NOVEMBER 15, 1913

Number Eleven

Editorial.

SUPPRESSING QUACKERY.

Recently the Chicago Tribune has opened up and exposed to its readers the iniquitous practice of advertising doctors.

The daily press has made the evil that the Tribune now seeks to repress. The ethical medical profession in season and out of season have done all they could to suppress unqualified and dishonest practitioners of medicine, and have welcomed every effort made by the press in their aid. The crusade of the Tribune is most welcome and bids fair to drive the unholy brood of cormorants out of business in Chicago, and if they will continue the good work they will drive them out of the whole country.

The state can do little in preventing quackery so long as a considerable proportion of the daily press are in the pay of quacks, for the press is a power in the land, although it is growing cleaner every year. All honor to the Chicago Tribune.

PREVENTING BLINDNESS.

Good work is being done by the Committee for the Prevention of Blindness in the state of New York, upon that unnecessary and ter-

ribly swift blindness that comes from inhaling the fumes of wood alcohol or from drinking liquor diluted or adulterated with wood alcohol.

Wood alcohol is sometimes used in varnish and the fumes have killed workmen using it and made others blind when varnishing the inside of tanks.

It seems there is no law that compels the use of the word "poison" upon the label of this dangerous drug. The New York committee are working for protective legislation, but realize that the education of the public is the surest way to get results and are moving intelligently in that direction. They can be assured of every aid the medical profession can give them.

MARRIED SCHOOL TEACHERS.

In New York City a married woman school teacher has been dismissed from the service because of her absence from duty to become a mother. The sympathy of the whole world goes out to every woman in the trials and suffering that come to her in bearing her offspring, and this bit of news from New York has produced something of a shock to all who have read it. It seems like penalizing maternity.

A teacher would not be dismissed for absence for a reasonable time because of any other sickness and it is doubtful if she should be dismissed for maternity. No woman would work as a school teacher while rearing an infant if she did not feel that she should or that she must. The welfare of the child and the rights of the child must also be taken into consideration. No mother can do justice to her child and teach school during the nursing period of the child.

Instances of the kind are not sufficiently numerous to prevent granting a year's leave of absence without pay to all such teachers.

FINGER BOWLS.

Believing there was rarely any need for the use of finger bowls at meals and that the same finger bowl without cleansing and with the same water was frequently offered to different guests in public dining places and might be the means of conveying disease the Northwestern Hotel Men's Association recently passed a resolution doing away with finger bowls except upon request or when fruit was served. Since then the movement has received medical sanction and a campaign has been started nation-wide in its scope chiefly through the efforts of Mr. Rome Miller, a hotel man of Omaha, Nebraska.

This action of hotel men means more than appears upon the surface. It means that they are alive to their responsibilities in preventing disease

from causes at a public table other than those from the indiscriminate use of finger bowls. Every guest should be assured that the water he is offered is pure or has been sterilized. The same may be said of milk and cream, ice cream or other foods that are served raw.

There does not seem to be any good reason for garnishing hot meats with sprigs of parsley or water cress. The sight of green things wilting upon a hot plate or floating in the hot gravy is anything but appetizing. It is too suggestive of the fingers in the kitchen possibly the unclean fingers, that placed them there. Any hot dish that is not sufficiently tempting to serve without such garnishing should not be served at all. It is the custom, too, to place a sprig of green on the butter that is served and again to place the butter dish on crushed ice in another dish. This keeps the butter hard, while it should be soft enough to spread easily when served.

These extra frills do no good, are more or less of a nuisance, and in addition cost money that the guest ultimately has to pay.

MILK PRODUCTS.

Malted milk is a valuable addition to the diet lists of cities. It is a delightful beverage, agreeable to almost every palate, and it is nourishing. It is a valuable addition to the diet of children and has been found useful in the feeding of infants, and has the advantage over raw milk of being sterile as to disease-producing bacteria.

Another valuable milk product is condensed milk. In the process of its preparation it is rendered sterile, but is not boiled milk, because the natural watery constituents are evaporated in vacuum. It is delicious upon the table in any capacity that raw cream is used and can be diluted and drunk as milk, or fed to nursing infants free from all the dangers of raw milk.

We would scarcely know how to get along without butter and the great variety of cheese that is on the market, while the use of ice cream is universal. All three would be better than they are and would be wholly safe if they were always made from sterilized milk. Sterilization of milk used in ice cream is always necessary, but we fear rarely done. Physicians should insist that ice cream be made from sterilized milk.

MILK AND VEGETABLES.

At the last meeting of the International Milk Dealers' Association Dr. Barnard, of the food and drug commission of Indiana, and Dr. Favill, of Chicago, took the position in the discussion "that the public stands as little protected from disease through milk as when there were no milk regulations," and that "the attempts on the part of the health inspectors all over the country to comply with the ordinances concern merely com-

mercial honesty, not sanitation," according to a newspaper report of the meeting.

Whatever the truth may be in other cities, the statement is overdrawn in reference to Chicago, and it is of doubtful accuracy in any city. A large part of the milk supply of Chicago is more sanitary than it was twenty-one years ago when the first milk ordinance was enacted. The cardinal point with milk that is used raw is its freshness, especially when used as infant diet. It takes just as long now to bring milk from the farm as it did twenty-one years ago. So far as the discussion may have been applied to the prevention of milk-borne tuberculosis the statement is practically true.

Application has been made by an electric railway company for admission to the city. The company proposes to carry farm products as well as passengers and would give an opportunity to the city to get garden and dairy products while still fresh and unimpaired. The scheme should receive every encouragement and the company should be permitted to deliver the product at as many points in the city as possible, so that every part of the city could get milk all the year round within twelve hours of milking time and vegetables in season before they are impaired by delays.

Book Reviews

A PRACTICAL TREATISE ON MEDICAL DIAGNOSIS. For Students and Physicians. By John H. Musser, M.D., LL.D., late Professor of Clinical Medicine in the University of Pennsylvania; formerly President of the American Medical Association, etc. New (sixth) edition, revised by John H. Musser, Jr., B. S., M. D., Instructor in Medicine in the University of Pennsylvania; Assistant Physician to the Philadelphia Hospital; Physician to the Medical Dispensary of the Presbyterian Hospital; Physician to the Medical Dispensary of the Hospital of the University of Pennsylvania. Octavo, 793 pages, with 196 engravings and 27 colored plates. Cloth, \$5.00 net. Lea & Febiger, Publishers, Philadelphia and New York, 1913.

We are more than pleased to see that the splendid book on Physical Diagnosis by the late lamented Musser is going to be kept alive by his able son and former assistant, Jno. H. Musser, Jr. The edition before us shows his ability to do so. While retaining the vast store of clinical knowledge possessed by the father, the book has been practically rewritten in order to bring it fully up to date owing to the great advance in medicine since the appearance of the last edition. Therefore, a great amount of new ma-

terial has been added in Part II relating to Special Diagnosis, especially in the chapters devoted to infectious diseases, metabolic diseases, diseases of the heart and blood-vessels, urinary systems, and gastro and intestinal affections.

In short, every chapter shows the changes made, but in spite of this, the size of the book has been considerably condensed and made more convenient in every way.

We congratulate the author on this new edition and can most earnestly advise every reader to add this most meritorious work to his working library.

A CLINICAL MANUAL OF MENTAL DISEASES. By Francis X. Dercum, M. D., Ph. D. Professor of Nervous and Mental Diseases, Jefferson Medical College, Philadelphia. Octavo of 425 pages. Philadelphia and London; W. B. Saunders Company, 1913. Cloth, \$3.00 net.

It is very fortunate to have a book of this character appear at this juncture, when morbid psychology has drifted away from the physical and medical point of safety, and metaphysics—using the term in its worst sense—has had a new birth of pernicious activity.

The volume is based upon the lectures given by the author at the Jefferson Medical College, Philadelphia, and is intended primarily for the use of students and practitioners as a manual rather than a formal treatise. No better introduction to the study of mental medicine can at present be presented to the student. Every page is written from the physician's standpoint and matters of abstruse psychology are relegated to their proper position. The classification adopted is a simple one that is quite abreast of psychiatric thought, and the subject matter is developed in a most lucid, agreeable, and comprehensive manner.

After appropriate chapters on the various kinds of insanity follows a section of the book in which the relations of insanity to accidents, poisonings, periods of life, age tendencies and other dominating factors are well discussed. There is a clear but not favorable exposition of the present Freudian psycho-analytical theories and methods, with a short exposition of the author's own views on the psychology of insanity. Admirable chapters on treatment close the volume.

A. CHURCH.

DIET IN HEALTH AND DISEASE. By Julius Friedenwald, M. D., Professor of Gastro-Enterology in the College of Physicians and Surgeons, Baltimore; and John Ruhrah, M. D., Professor of Diseases of Children in the College of Physicians and Surgeons, Baltimore. Fourth edition, thoroughly revised and enlarged. Octavo of 857 pages. Philadelphia and London; W. B. Saunders Company, 1913. Cloth, \$4.00; Half Morocco, \$5.50 net.

Our favorable opinion of this most excellent book at its first appearance has been fully justified by the recognition it has received at the hands of the profession and the appearance of the fourth edition within so short a time. The book has been brought fully up to date and we note the addition of a section on the mechanics of digestion, rewriting of the articles on metabolism and the sections on diabetes and gout, also the diet in fevers, especially typhoid. Among new subjects are duodenal alimentation and the uses of the soy bean. The chapter on infant feeding has been thoroughly revised.

We earnestly recommend this book to all practitioners, medical students, trained nurses, and the superintendents of hospitals.

ANATOMY, DESCRIPTIVE AND APPLIED. By Henry Gray, F. R. S., Fellow of the Royal College of Surgeons; lecturer on Anatomy at St. George's Hospital Medical School, London. New (English) edition, thoroughly revised and re-edited, with the Basele Anatomical Nomenclature in English, by Robert Howden, M. A., M. B., C. M., Professor of Anatomy in the University of Durham, England. Imperial octavo, 1,407 pages, with 1,126 large and elaborate engravings. Cloth, \$6.00 net; leather, \$7.00 net. Lea & Febiger, Publishers, Philadelphia and New York, 1913.

This is one of the books which needs no review. It is standard, super-excellent, the Nestor of all current medical books, always old, ever new, inflexible, unerring, the terror of the student, the comfort of the surgeon; but indispensable to every medical man from his infancy in medicine, throughout his growth, till his final ending. It is always needful, always useful, a very rock of Gibraltar, a lighthouse of intelligence and a searchlight of truth.

THE ELEMENTS OF BACTERIOLOGICAL TECHNIQUE. By J. W. H. Eyre, M. D., Director of the Bacteriological Department of Guy's Hospital, London. Second edition, rewritten and enlarged. Octavo of 518 pages, with 219 illustrations. Philadelphia and London; W. B. Saunders Company, 1913. Cloth, \$3.00 net.

As a hand-book upon laboratory technique, a book to have with one for constant reference, we know of none superior in the English language. The book has been written not only for medical students and practitioners, but also for technical students generally, as those of agriculture, brewing, or dairying. Speaking from the medical viewpoint, its great value as a book for students is shown by a statement of the author. "Of these methods, some are new, others are not, but all are reliable, only such having been included as are capable of giving satisfactory results even in the

hands of beginners. In fact, the bulk of the matter is simply an elaboration of the typewritten notes distributed to some of my laboratory classes in practical and applied bacteriology."

To the physician and laboratory worker, especially isolated workers in laboratories far removed from centers of instruction, such a collection of tried and proved methods must be very valuable.

Any notice of this book would be incomplete without mention of the illustrations. The author believes that "an illustration, if good, possesses a higher educational value and conveys a more accurate impression than a page of print," and in looking through his book one is inclined to agree with him. The cuts are most of them original and are introduced whenever necessary to elucidate the text, and they certainly do make clear many points that would otherwise be obscure to the student. The book is made up by Saunders in beautiful style, the different sizes of type being unusually clear and distinct. Altogether it will be a decided acquisition to any laboratory.

ESSENTIALS OF PRESCRIPTION WRITING. By Cary Eggleston, M. D. Instructor in Pharmacology, Cornell University Medical College, New York City. 32mo of 115 pages. W. B. Saunders Company, 1913. Cloth, \$1.00 net.

This little book is quite necessary to every medical student, as it gives him all needful information how to write prescriptions correctly. Also information on the metric system, doses of drugs, incompatibilities, suggestions for prescribing, official preparations, etc. In short, it covers everything needful for intelligent prescription writing.

DIAGNOSIS OF BACTERIA AND BLOOD-PARASITES. By E. P. Minett, M. D., D. P. H., D. T. M. & H., M. R. C. S., L. R. C. P. Assistant Government Medical Officer of Health and Bacteriologist, British Guiana, etc. Second edition. New York; Paul B. Hoeber, 1913. Price, \$1.00 net.

This little book is an example of the fact that one does not often realize how much he has wanted or needed a particular thing, as a book or instrument, until he is supplied with it. In the space of about eighty pages Dr. Minett has managed to compress a complete scheme of bacteriological diagnosis. Where heretofore we have looked here, there and everywhere through 500 pages of a text book of bacteriology, we now find it all brought together and condensed upon a page or two.

Bacteria, pathogenic and non-pathogenic, are considered in detail, each taken up in turn, characteristics described, wherein each one differs from others somewhat similar, and the methods and technique necessary

1. The first part of the document is a list of the names of the persons who have been appointed to the various offices of the city government. The names are listed in alphabetical order, and each name is followed by the name of the office to which the person has been appointed.

2. The second part of the document is a list of the names of the persons who have been appointed to the various offices of the city government. The names are listed in alphabetical order, and each name is followed by the name of the office to which the person has been appointed.

3. The third part of the document is a list of the names of the persons who have been appointed to the various offices of the city government. The names are listed in alphabetical order, and each name is followed by the name of the office to which the person has been appointed.

4. The fourth part of the document is a list of the names of the persons who have been appointed to the various offices of the city government. The names are listed in alphabetical order, and each name is followed by the name of the office to which the person has been appointed.

5. The fifth part of the document is a list of the names of the persons who have been appointed to the various offices of the city government. The names are listed in alphabetical order, and each name is followed by the name of the office to which the person has been appointed.

6. The sixth part of the document is a list of the names of the persons who have been appointed to the various offices of the city government. The names are listed in alphabetical order, and each name is followed by the name of the office to which the person has been appointed.

7. The seventh part of the document is a list of the names of the persons who have been appointed to the various offices of the city government. The names are listed in alphabetical order, and each name is followed by the name of the office to which the person has been appointed.

trated. Cloth, \$1.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1913.

This little manual must be credited with giving good reason for its existence. While necessarily much condensed, still all the salient facts are stated in a way easily remembered and careful reading is encouraged by a series of questions at the end of each chapter, which cover the ground traversed. To many older practitioners such a handbook will be of special service, acquainting them with the facts of modern pathology. Students and men preparing for state board examinations will also find this volume very serviceable. This, the second edition, has been thoroughly revised.

RADIUM AND CANCER. Radium as Employed in the Treatment of Cancer, Angiomata, Keloids, Local Tuberculosis and Other Affections. By Louis Wickham, M.V.O., and Paul Degrais. Translated by A. and A. G. Bateman, M.B., C.M. With fifty-three illustrations. New York: Paul B. Hoeber. 1913. Price, \$1.25 net.

This little book of about 100 pages is practically a résumé of the much larger work on the same subject published by the authors in 1909 and of which a second edition appeared last year. Those who want to get a general idea of radium treatment can do so readily by securing this smaller book, which is devoted largely to the uses of radium in cancerous affections, with a few chapters on radio-activity, methods of therapeutic filtration, appliances, etc. Also a chapter on the emanation method. As the writers have had great experience, they speak with authority.

WESTWAYS. A Village Chronicle, By S. Weir Mitchell, M.D., LL.D., Author of "Hugh Wynne," "Adventures of Francois," etc., etc. New York: The Century Co. 1913. Price, \$1.40 net.

Dr. Mitchell's novels are always well worth reading. His wide experience and keen power of observation enable him to write understandingly of almost any situation. He is, moreover, a kindly observer who looks with a loving eye on the good traits to be found in the people about whom he writes. This does not mean that his stories are uniformly good. Indeed, no one would pretend to say that "Westways" does for the Civil War what "Hugh Wynne" did for the Revolution. But it is a pleasant tale, beginning some years previous to the Civil War, with a slightly sketched but nevertheless illuminating picture of the heartbreak and trouble caused by difference of opinion among members of the same family.

The early and best part of the story is laid in the quiet little Pennsylvania village of Westways. The Penhallow family are altogether delightful and one is both interested and amused by the experiences of young John Penhallow. Later in the story the description of the war itself is not as

vivid as one would expect from the wealth of detail Dr. Mitchell must have at hand from his personal recollections. But time has passed since then and perhaps it is not surprising that a man of four score years and more should write gently of battles that were fought fifty years ago.

Those who have known and loved Dr. Mitchell's books for many years past will be glad to hear that he has written another novel. To those who have not known the great physician in his character of novelist, we recommend "Westways" as a good introduction to an author who can give them many happy hours of delightful reading.

PATHOLOGICAL INEBRIETY. Its Causation and Treatment. By J. W. Astley Cooper, Medical Superintendent and Licensee of Ghyllwood Sanatorium near Copermouth, Cumberland. With Introduction by Sir David Ferrier, M. D., F.R.S. New York: Paul B. Hoeber. 1913. Price, \$1.50 net.

A very excellent study of pathological inebriety, a subject which should receive more attention from the profession and which should be more carefully studied. Special stress is laid on the psychical treatment of inebriety and methods to regain self-control with less dependence on hypodermic injections of atropine and strychnine as a specific, recognizing its empiric and temporary value.

The author believes that the treatment of inebriety is best carried out in a special institution by a combination of drug treatment and psychotherapy.

We would bespeak a cordial reception for this book which deals so effectively with drunkenness due to a pathological psychoneurotic condition.

THE WHITE LINEN NURSE. By Eleanor Hallowell Abbott. Author of "Molly Make-Believe," "The Sick-a-Bed Lady," etc. With illustrations by Herman Pfeifer. New York: The Century Co., 1913. Price, \$1.00 net.

This whimsical little story makes a delightful hour's reading. It is a pleasant tale of a blue-eyed, doll-faced little nurse who pretends to have no ideas or judgment of her own and who insists that she entered the training-school in the first place merely because the nurses' caps looked so "cute," but who is really one of the most subtle of women, capable of heroic self-sacrifice and devotion to those she loves. This sturdy little nurse and a bad-mannered surgeon with a lonely crippled daughter are the central figures in a charming love story.

Perhaps the author has depicted the great surgeon unnecessarily bad-mannered and profane, has endowed the crippled daughter with altogether too many unlovable and shrewish traits, and has given the pretty little

nurse too much simplicity and submissiveness. But, on the other hand, these contrasts add sprightliness and vitality to the book, and, as no serious questions are involved, the exaggerations may be forgiven.

A COMPEND OF DISEASES OF THE SKIN. By Jay F. Schamberg, A.B., M.D., Professor of Diseases of the Skin, Philadelphia Polyclinic and College for Graduates in Medicine; Fellow of the College of Physicians of Philadelphia; Member of the American Dermatological Association. Fifth edition, Revised and Enlarged. With 112 illustrations. Philadelphia: P. Blakiston's Son & Co. 1913. Price, \$1.25 net.

A fifth edition of this little book has been called for, which demonstrates its usefulness to students. While very concentrated, the numerous illustrations help out a lot to supplement the list. The treatment recommended is generally good and useful. Duhring's classification of skin diseases has been followed by the author. This edition has been brought up to date and such subjects as the newer treatment of syphilis, vaccine treatment, carbon dioxid, etc., have all been duly considered.

BOOKS AND PAMPHLETS RECEIVED.

THE RELATION OF THE NITRATES TO THE PUTRESCIBILITY OF SEWAGES. By Arthur Lederer, M.D., Chicago. Reprint.

THE SURGICAL CLINICS OF JOHN B. MURPHY, M.D., AT MERCY HOSPITAL, CHICAGO. Volume II, Number V (October, 1913). Octavo of 174 pages, 52 illustrations. Philadelphia and London: W. B. Saunders Company. 1913. Published Bi-Monthly. Price per year: Paper, \$8.00; cloth, \$12.00.

THE PHYSICIAN'S VISITING LIST (Lindsay & Blakiston's) for 1914. Sixty-third year of its publication. Philadelphia: P. Blakiston's Son & Co. Sold by all booksellers and druggists.

BULLETIN OF THE KENTUCKY STATE BOARD OF HEALTH. Biennial Report. 1910 and 1911.

THE WELCOME PHOTOGRAPHIC EXPOSURE RECORD AND DIARY. 1914. London: Burroughs, Wellcome & Co. Price, 50 cents.

News Items

Good Books.—At every performance of "Damaged Goods" Richard Bennett recommends the books on sex hygiene by Dr. E. B. Lowry, of the Chicago Medical Society, as the best on this subject.

Notice.—Dr. J. W. Van Winkle, for many years the local representative of Eskay's Food Company, is now connected with the Chlorothol Chemical Company, a Chicago company putting out a new product—Chlorothol.

Chicago Gynecological Society.—At a meeting held October 17, 1913, the Chicago Gynecological Society elected the following officers: Frank W. Lynch, president; Thomas J. Watkins, first vice-president; Henry F. Lewis, second vice-president; Robert T. Gilmore, secretary; Charles B. Reed, treasurer; W. A. Newman Doland, editor; Arthur H. Curtis, pathologist.

Red Cross Seals Soon to be on Sale.—Six million Red Cross Seals have been received by the Illinois State Association for the Prevention of Tuberculosis, at 1512 Otis building, Chicago. The early enthusiasm of the thirty-three local tuberculosis societies in Illinois and the greatly increased interest of the general public in the success of the Anti-Tuberculosis Campaign, forecast the success of the record-breaking sale of 2,500,000 seals predicted by leaders of the anti-tuberculosis campaign in Illinois. Two million Red Cross Seals were sold in Illinois in 1912.

Public Safety Commission Organized.—The Public Safety Commission of Chicago and Cook County, which was organized recently, has appointed committees containing the following physicians: Industrial Accidents—Dr. A. M. Harvey; Electric Railway Accident—Dr. Harold N. Moyer; Educational—Drs. W. E. Buehler and A. M. Harvey; Criminal Operations—Drs. E. R. LeCount, chairman; Harold N. Moyer, C. W. Hopkins and W. E. Buehler; Drowning, Homicides, Suicides—Dr. W. E. Buehler, chairman, and Drs. E. R. LeCount, Harold N. Moyer and C. W. Hopkins.

New Management for Rockford Sanitarium.—Dr. Sidney D. Wilgus, retiring superintendent of Kankakee State Hospital, also former superintendent of Elgin State Hospital, begs to announce that he has purchased a sanitarium at Rockford, Ill. (The Ransom), and is prepared to give personal care and attention to mental and nervous cases and drug addictions. Modern features having been added, the equipment is qualified to give up-to-date treatment. Also tennis, croquet, boating and other outdoor exercises are prescribed. A nine-hole golf course is near by. Correspondence solicited, or, to save time, telephone: Long Distance, Rockford 3767, and reverse the charges. On request patients are met at any train with an automobile.

Officers Elected at Clinical Congress of Surgeons.—At the business meeting held in the gold room of the Congress Hotel Friday afternoon, November 14th, the following officers were elected: President, John B. Murphy, Chicago; vice-president, George E. Armstrong, Montreal; general secretary, Franklin H. Martin, Chicago; general treasurer, Allan B. Kanavel, Chicago; general manager, A. D. Ballou, Chicago.

A committee representing the surgeons of London, England, composed of Sir Rickman J. Godlee, Sir William Arbuthnot-Lane and Mr. Herbert J. Patterson, extended an invitation to the Clinical Congress of Surgeons of

North America to hold its next session in London in July, 1914. The invitation was unanimously accepted.

A Modern Filter Service.—An ingenious method of supplying the modern demand for filtered water is furnished by the Red Cross Filter Company of this city. They furnish a filter service, a system operated along lines similar to the telephone service, viz., the filters remain the property of the operating company and no charge of any kind is made outside of a moderate service fee within easy reach of all.

Without any charge for installation they will place in your residence or office one of their Self-Flushing Filters, and maintain same in good working condition at an almost nominal monthly rental. Telephone for further particulars, Main 3018, or write for literature to the Red Cross Filter Company, 184 West Washington street, Chicago.

Personal.—Dr. Hollis E. Potter was elected president of the newly organized Chicago Roentgen Society, October 24. The secretary of society is Dr. James T. Case.

Dr. Otto L. Schmidt has been reappointed a trustee of the Illinois State Historical Library.

Dr. George W. Webster has been continued as president of the new Illinois State Board of Health.

Dr. E. H. Ochsner has been appointed a member of the state charities committee succeeding Dr. Frank Billings.

Dr. Liston H. Montgomery has been appointed surgeon of the Eastern Division of the Chicago Great Western Railroad, to date from October 10.

Condemns Big Breakfasts.—That the traditional heavy breakfast of the Englishman is harmful to him is now being asserted by many physicians, and the advisability of going without breakfast is discussed in *The Lancet*. It is stated that after the night's sleep the bodily strength, nervous and muscular, is at its highest and work can be carried on without food. The evidence of many literary men proves there is no time of the day more fitted for the production of intellectual or imaginative work than the early morning hours, which, quiet and refreshing, are friendly to brain work, breakfast or no breakfast.

There is a great deal to be said in favor of the "coffee and rolls" plan, says *The Lancet*, and for men whose day is spent in brain work the wise course is to relegate a hearty meal to the evening.

Cook County Civil Service Commission.—Examinations will be held from December 15 to 23 inclusive for appointments on the staff of the Cook County Hospital in the following departments: Nervous and Mental Diseases, Contagious Diseases, Children's Diseases, Tuberculosis, Skin and Venereal Diseases, Eye and Pathology.

Promotional examination will be held November 28, 1913, at 7 p. m., for Chief Attending Physician and Surgeon, Class A, Rank 3, Grade 5, for the following departments: Medicine, Children's Diseases, Skin and Venereal Diseases, Surgery, Obstetrics, Gynecology, Ear, Nose and Throat, Eye, Orthopedics, Pathology.

Further information may be obtained at the office of the commission, Room 547 County Court House, Clark and Washington streets. Telephone Franklin 3015.

American Ward in London Hospital.—There is not a single bed "completely endowed as an American bed" in any London hospital.

The German and Italian communities in London and the French nation each maintain hospitals here for their compatriots at a cost of \$500,000 or more annually, but Americans have not a ward of their own. In Paris, it is pointed out, there is a fine American hospital.

In view of the fact that many American visitors in London receive hospital treatment, a movement is now on foot to remedy this matter by the establishment of an endowment for an American ward in the London Hospital.

Among those associated with the scheme are the Countess of Essex, the Viscountess of Maidstone, Lady Malcolm of Portaeloch, Lady Barran, Lady Arthur Butler, Lady Maxim, the Hon. Mrs. Roland C. Lindsay, and Mrs. M. F. Ronalds. An appeal for funds has been made, and if the amount be insufficient to endow a full ward several beds will be set apart for American patients.

Appointment of House Officers.—Examinations for the appointment on January 1, 1914, of one aural and of one ophthalmic house officer will be held at the Massachusetts Charitable Eye and Ear Infirmary, 233 Charles street, Boston, Mass., on Thursday, December 11, 1913, at 10 a. m.

The service in the Aural Department is of eighteen months' duration, with residence in the hospital.

The service in the Ophthalmic Department is of eighteen months' duration, with residence in the hospital.

Applicants are examined in anatomy, physiology, bacteriology, pathology, clinical medicine and therapeutics and surgery.

Application must be made before December 6, 1913. Application blanks can be obtained from the superintendent at the hospital or will be sent by mail.

The number of patients treated in the wards last year was 3,652; 1,756 eye, 1,896 ear. The number of new out-patients was 30,012. The total out-patient attendance was 58,062. By these figures some idea can be obtained of the clinical opportunities offered.

Farrar Cobb, M. D., Superintendent, 233 Charles Street, Boston, Mass.

Diploma Now Required of Midwives in New York City.—The Department of Health of New York City has decided that in future it will require the presentation of a diploma or certificate showing that the prospective midwife is a graduate of a midwifery school before a permit to practice will be issued to her. The resolution embodying this intention was passed at a meeting of the Board of Health on the 14th day of October, 1913, and reads as follows:

Resolved, That the rules governing the practice of midwifery in The City of New York, adopted by the Board of Health November 8, 1907, be and the same hereby are amended, so as to read as follows; the same to take effect on and after the 1st day of January, 1914:

Rule 3. The applicant must be twenty-one years of age or upwards, of good moral character and able to read and write. She must be clean and costantly show evidence in general appearance, of habits of cleanliness.

The applicant must also present a diploma or certificate showing that she is a graduate of a school for midwives registered by the Board of Health of

The City of New York as maintaining a satisfactory standard of preparation, instruction and course of study, but the requirement of a diploma shall not apply to any person who is now or heretofore has been authorized to practice midwifery by the said board.

ALFRED C. COTTON, A.M., M.D.,

Pediatrician and Man Four-Square.

By Arthur M. Corwin, A. M., M. D.*

Good Sir, and Master of this gracious hour,
And all ye goodly sirs, both lean and fat,
Who count a friend of greater worth
Than name of oligarch or democrat,
And who delight to show esteem to this,
The Nestor of them all in matters infantile;
Give heed, I pray, to these, my verses blank,
For ordinary prose may not express the thought
And rhymes with cautious, halting feet
Are all too slow.

'Tis given to womankind
To draw mere man with silken thread of charm
Of mind and heart and fascinating form and face,
And bind him with a golden grace of manner sweet,
With thrilling touch of lip and soft embrace;
Her voice like call of mermaid,
From an emerald beckoning wave
Enceptrivates him in its liquid depths,
And if he struggle from its thrall,
'Tis vain, her soulful eye has shot its conquering shaft;
His virile strength is all her own;
In servitude he bows, her willing slave.

And yet not all her slave,
For as to Jonathan a David clave,
And Damon to his Pythias,
The brotherhood twixt stalwart men
Was born of old, divinely chemical—
Fraternal atoms they
Of that primeval plastic clay
From which they sprang,
In sworn allegiance through a common origin;
'Tis thus these atoms men cohere
To make fair friendship's molecule
A most coherent stuff.

*Recited at a dinner given in Dr. Cotton's honor by two hundred and fifty of his confreres, at the Hotel Sherman, September 25, 1912.

But as the potter molds from out the mass
Some fairer shape
In skillful likeness of a thing divine,
So differ men, and differ too
In quality of their ancestral mud;
Thereby we humans masculine
In recognition of a bit of finer stuff,
Though one of us,
Rejoice to bring spontaneous offering
Of soul and brawn to Cotton,
Long our friend, our counselor,
And yet our critic just.

'Tis our's to laud the virtues rare of this, our friend,
His faults forget—
What artist would, with sooty brush,
Bedaub the beauties of a sunset sky?
Nor measure we with fulsome flattery
His merits fine;
No honor that to him or us
And naught to satisfy.
'Tis mete the rather with an eagle's quill,
Symbolic of the strength of love we feel,
To write indelibly and plain
The happy truths we know of him.

What though of human foibles
He may have his share;
If they who do no sin shall claim
Alone the right to cast a stone at him,
No shower of rock shall fall his way,
As none of yore.
Of faults he has a few,
Some grave, perhaps, why not?
So have we all.
We love him for abundant grain of character,
A priceless store,
And reckon not of chaff.
A born physician he,
For whom, though men and women look
To cure their ills,
Especially do infants weep
In time of pain and fear.
The voices of ten thousand of these little ones,
He's seen and saved.
I seem to hear in mighty chorus to his praise,
From out the tangle of the sleepless nights
And weary days he's served;
The children love him so,
As follow fast his trail their flying feet.

Volume XXV.

Number Twelve

The Chicago Medical Recorder

DECEMBER
Nineteen Thirteen

\$2 a Year in Advance
Single Copies 20 Cts.

The therapeutic worth of the Phylacogens has been conclusively proved.

Before marketing a single dose of Phylacogens we devoted fourteen months to a searching, patient, probing investigation of those products—an investigation conducted at the bedside, in homes and in hospitals, by hundreds of competent and disinterested physicians.

On February 8, 1912, the first Phylacogen was formally offered to the medical profession.

Today the growing mass of clinical evidence comprises more than seven thousand cases. It comes from every state in the Union. It shows 83 per cent. of recoveries—a record unmatched, we believe, by any other therapeutic agent.

Rheumatism Phylacogen.
Pneumonia Phylacogen.

Gonorrhea Phylacogen.
Erysipelas Phylacogen.

Mixed Infection Phylacogen.

(Vials of 10 Cc.)

LET US SEND YOU LITERATURE.

Home Offices and Laboratories
Detroit, Mich.

Parke, Davis & Co.

Panopepton

represents a very special refinement of attainment in its adaptation to the conditions prevailing in illness—the general disturbance of function, failure of digestion, depletion of energy, the whole organism engaged in a struggle against invasion, in need of reinforcement, yet unable to draw nutrition and strength from ordinary foods.

PANOPEPTON is prepared in the laboratory with that exact scientific technique impossible to attain in preparing foods in the household; contains all the soluble sustaining substance of beef and wheat, refined, physiologically converted, by means of gastric and pancreas gland extracts (the only available means for the purpose) to a point where it can be appropriated without effort.

PANOPEPTON presents, in an agreeable sterile solution, all the elements of a good mixed diet (except fat); has a proper ratio of protein to carbohydrate, some of the proteids reduced to ultimate cleavage; meets to a remarkable degree the application of modern physiological chemistry in the feeding of the sick. Surely "science can go no further in adapting food to an organism enfeebled by disease".

And the clinical success of PANOPEPTON, observed daily, proves the "science" of the statements with which it is offered; the scientific "commonsense" of the principles on which it is based.

FAIRCHILD BROTHERS & FOSTER
NEW YORK

NEW SIZE PACKAGE—25 CENTS

To meet the constant and increasing demand for a smaller and more convenient package, PLATT'S CHLORIDES will now be put up in both small and large size Bottles, retailing for 25 and 50 Cents.



PLATT'S CHLORIDES has been universally used by hospitals, nurses and the medical profession for over 34 years and has always given entire satisfaction.

It is absolutely odorless and does not cover one odor with another. It does not stain.

Safe, strong, efficient, and economical.

Recommended by Physicians generally.

Platt's Chlorides,
The Odorless Disinfectant.

HENRY B. PLATT, 42 Cliff St., New York

Two Sizes—50 and 25 cents

Sample bottle and booklet mailed free

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

through the dialyzer into the water in which the dialyzing tube rests, to which water a small amount of ninhydrin solution has been added. When the pepton and the ninhydrin meet, a bright violet red color appears. In the controls, to which other blood serums of non-pregnant women have been added, no such coloration shows itself.

This test can be applied to any other intoxication as well as pregnancy. For example, in exophthalmic goiter there exists in the patient's blood a "defensive ferment" which reduces the albuminous "antigen-like substance" prepared from thyroid tissue.

It occurred to Fauser of Stuttgart, who had worked for a long time with complement fixation tests to determine, if possible, the etiology of the insanities, that the Abderhalden reaction could be applied to diagnosis in psychiatry. He at once began to consider the substances to be used for antigens. In the psychoses which attend the "dysfunction" of the thyroid (myxedema and hyperthyroidism) the thyroid was naturally thought of; in dementia praecox every sort of a substance was tried. It was soon discovered that every case of dementia praecox was positive with testicle (if male) or ovary (if female); that no case of manic depressive insanity, no case of epilepsy, and only exceptional cases of general paresis, gave any reaction to the genital glands.

Fauser's papers appeared at frequent intervals and many other alienists reported confirmatory observations—Wegener (of Jena, 200 patients), Bundschuh and Roemer, Mayer, Byer, Lampi and Fuchs, Neue, Theobauld, Steising, Fischer and Bensinger, making an aggregate of more than two thousand patients and healthy controls. The results seem conclusive in the following particulars.

1. All cases of dementia praecox give a positive reaction to testicular (if male) or ovarian (if female) "antigen-like substance."

2. No cases of manic depressive insanity, epilepsy, or hysteria have given a positive reaction to the "antigen-like substance" made from the genital glands.

3. Some cases of dementia praecox (very bad ones), all cases of epilepsy (near an attack at least), and most cases of general paresis give a positive reaction with an "antigen-like substance" made from human brain cortex. (Paretics toward the end give reactions to almost anything, when all organs are degenerating.)

Thus we see that for the first time we are provided with an almost infallible method of diagnosis for dementia praecox. It may be also that there are earlier stages of this disease in which this method of diagnosis can be used. Physicians and teachers often see youths who show some of the symptoms of dementia praecox as an episode. These symptoms they "out-

grow." The tests up to the present have been made on established cases of insanity committed to the asylums.

Very often it would be a satisfaction and pedagogically very desirable to know that a troublesome adolescent in the public or private school was not in the initial stage of adolescent insanity, and our principals and superintendents should be able to avail themselves of this test.

The same conditions prevail in the army. More than half the insanities in the recruits prove to be cases of dementia praecox whose first symptom was the unfilial act of enlisting without parental consent.

But it is in our courts that this diagnostic test should be of the greatest significance. In the city and in the country youthful insanity shows itself by some misdeed or crime that brings the youth into conflict with the law. A well regulated society ought to take cognizance of this fact, especially now that dementia praecox is no longer a matter of opinion but a matter of fact demonstrable *ad infinitum* by the Abderhalden physiochemical reaction.

"Dysfunctions" of the hypophysis, of the thyroid, of the carotid glands, of the adrenal glands and even of the kidneys, the spleen, the liver or the prostate are likely to respond to this test properly applied. It opens up a way to an exact and positive focal and functional diagnosis. The diseases or degenerations of the thyroid, for example, are known to be of several kinds. Experience has already shown that the blood of a patient with one form of disease of the thyroid does not reduce as sharply, if at all, the antigen made from a normal gland or from one with a different process as it does reduce the antigen made from a gland with a similar pathology. In other words, the test shows a remarkable specificity.

It is likely that in guiding and directing research that this method will be of the greatest value. There are many disease that give no hint in their symptoms or terminal findings of the primary or essential site of the affection. There are conditions in which many glands are affected and yet local relief of one relieves all the others of "dysfunction" and restores the patient to health. It does not seem unreasonable to expect a rise to a new plateau of research, a new horizon of understanding in the dark field of psychiatry and internal medicine.

The simplicity and useability of these tests are such that with a trifling expense the equipment may be added to any existing clinical laboratory, and any laboratory man or woman who has the skill necessary to make any of the complement fixation tests is able quickly to master the technique of preparing the material and performing the Abderhalden tests.

THE HISTORY OF THE CITY OF BOSTON FROM 1630 TO 1800

The city of Boston, founded in 1630, has a rich and varied history. It was the first city in North America to have a city government, and it was the first city to have a city seal. The city was founded by a group of Puritan settlers who came from England. They were looking for a place where they could practice their religion freely. They found Boston, and they built a city that has since become one of the most important cities in the United States.

Boston was the first city in North America to have a city government. It was founded in 1630 by a group of Puritan settlers who came from England. They were looking for a place where they could practice their religion freely. They found Boston, and they built a city that has since become one of the most important cities in the United States. The city was the first to have a city seal, and it was the first to have a city government. The city was founded by a group of Puritan settlers who came from England. They were looking for a place where they could practice their religion freely. They found Boston, and they built a city that has since become one of the most important cities in the United States.

Boston was the first city in North America to have a city government. It was founded in 1630 by a group of Puritan settlers who came from England. They were looking for a place where they could practice their religion freely. They found Boston, and they built a city that has since become one of the most important cities in the United States. The city was the first to have a city seal, and it was the first to have a city government. The city was founded by a group of Puritan settlers who came from England. They were looking for a place where they could practice their religion freely. They found Boston, and they built a city that has since become one of the most important cities in the United States.

Boston was the first city in North America to have a city government. It was founded in 1630 by a group of Puritan settlers who came from England. They were looking for a place where they could practice their religion freely. They found Boston, and they built a city that has since become one of the most important cities in the United States.

In the second type of operation the incision was evidently made also by a rudely pointed instrument, probably of stone, held vertically, and moved reciprocally; but as the cutting reached and penetrated the inner table, the locus of incision was moved forward and at the same time the direction of the sawing was changed, so as to produce a rudely curved cut, and when two such incisions were made, an irregularly elliptical button. Some examples indicate that this type of operation was completed by scraping or grinding away the jagged surfaces left by the incision.

The third type of operation was performed largely or wholly by scraping in such a manner as to remove the outer table and diploe, and reduce the inner table to a feather edge. Some of the examples suggest that the scrapings, which may easily have been effected with stone instruments, and give no indication of the use of metal, represent the final part of an operation begun by the curved incision.

Several specimens show by spicules of regenerated bone, by retarded growth and by the partial absorption of the outer table and diploe that the patient survived the operation, and hence that the trephining was antemortem. Several examples are especially noteworthy, in that they prove the operation to have been surgical. In one example the cranium shows a depressed fracture of the left temple, such as might have been produced by impact of a sling-stone or a blow from a spiked club, which are known to have been the weapons used among the ancient Peruvians. A second example shows marks of a similar fracture in the posterior portion of the left parietal bone. A third specimen displays a comminuted fracture, involving the left temporal suture; and in this case an operation was performed by scraping, producing an elliptical aperture, about $\frac{5}{8} \times \frac{3}{4}$ inch; and there is, in addition, a simple vertical incision, such as those produced in the first type of operation, which apparently represent the first stage of supplementary treatment. This individual also apparently died before the final operation was completed. Another example exhibits a linear fracture fully 6 inches long, extending from near the center of the occipital across the lower portion of the right parietal, and across the temporal, disappearing under the zygomatic arch.

In another specimen the skull is small and thin; the closure of the sutures is so far progressed as to indicate an age of 25 or perhaps 30 years; while the development of the teeth indicates an age not exceeding 12 years. In this case the aperture, which is on the right side, is of remarkable size, extending from the frontal bone within $\frac{3}{4}$ -inch of the orbital cavity, across the coronal sutures, nearly to the center of the parietal, its length being fully 4 inches, and the average width an inch. The specimen is of interest also in that it was the only one in which a plate is known to have been used, a silver plate having been found in place over the aperture in the mummy case. The presence of the plate, its seat in the skull showing long wear,

simple days the various cranial operators lacked uniform technic. In the "temporal decompression," as it might be called, the bone was filed away by a rough, file-like piece of flint, until the dura or perhaps cerebrum also lay bare. Other operators preferred to saw around in a circle until they reached the dura, and then pried up the bone flap with a flint elevator. Others made multiple punctures with a sharp flint gouge and hammer, and ended by breaking up the bone between these punctures. Further details of the operation the study of the skull does not reveal; but that some of the subjects survived the operation is evident from the fact that callus and new bone were formed at the operation site. In some of the cases the operation must have been performed in tender years, since the disturbance in growth consequent to the operation led in some skulls to marked deformity.

That a certain callous equipoise and a muscular resistance were the requisites of the surgeon of that day and some fortitude the requisite of the patient may be surmised. It is possible, however, that some of the operations were performed while the patient was unconscious.

What the indications for the procedure were it is easier to surmise than prove. Rènè Leforte ("La Trepanayion a travers les Ages"),* states that certain of the neolithic cases of trepanation still show the traces of organic hydrocephalus, bone necrosis, and traumatic lesions. Paul Broca, in the *Societe d'Anthropologie*, suggested that the great frequency of trepanation in the neolithic age was due perhaps to a conception that certain intracranial affections, idiocy, insanity, epilepsy and convulsions were Divine attributes, and the letting out of the imprisoned spirit or devil a sacred operation which made its subject an object of veneration; hence his occasional long survival in that rough age. The fact that trepanation, cauterization and other mutilating cranial operations have been done in historic times among primitive people for similar indications lends weight to Broca's view.

The sincipital-T is another peculiar cranial procedure dating back to neolithic times. It was Manouvrier who first called our attention to this peculiar neolithic performance. It consisted in burning a rough T into the vertex of the cranium, probably directly through the scalp, by using a hot coal or heated flint. Manouvrier interprets this procedure as a surgical operation, and suggests that since it is found chiefly in female skulls it may have been done for hysteria, and under these circumstances it may have been sometimes effective.

In the times following the neolithic age, the finding of trephined skulls is less frequent than in the stone-age remains. Nevertheless, they occur all through the ages, and even today a fairly well developed technic of trepanation is not an infrequent development among primitive people

*L'Echo Medicale du Nord, 1906.

widely separated. Herodotus states that the Lybian nomads cauterized the scalp for many ailments, and even as a prophylactic measure against disease in general. The Thebids of Aures, in North Africa, who may perhaps be somewhat indirectly related to these Lybian nomads, have today a well-developed trepanation procedure. (An interesting account of their methods and the indications for operation may be found in the introduction to Chipault's "Cranial Surgery.")

In the time of Avicenna the Arabs in Persia practiced cauterization of the scalp for the cure and prevention of infantile convulsions. A crude cranial surgery was practiced in ancient times in both China and Japan.

The Natural History Museum in Vienna has a collection of trephined skulls from the Bismarck Archipelago, especially from the Islands of New Britain, sometimes known as New Pommerania. The primitive weapons of war which these islanders still use produce numerous skull fractures, and the trepanations are done in order to lift fragments of broken skull. Some of the instruments used are also shown. The technic is said to be as follows: After the injury the hairs of the scalp are scraped away with an oyster shell or sharp piece of glass, and then a stone elevator is inserted into the scalp wound and underneath the splinters of bone, and with it they are pried up and perhaps sometimes removed. The dressings consist usually of only a layer of fresh leaves. (These skulls have been studied and recorded by Dr. Alfred Zedekauer, in vol. XXX of the report of the *Anthropological Society of Vienna*.)

The Kabyles, a tribe of Algeria, also are said to have practiced trepanation in recent times.

Hippocrates had a much better developed technic of trepanation than any of these primitive people. He used two varieties of trephines, one something like our present crown trephine and another auger-shaped. For fear of injuring the dura, he bored through only as far as the last bony lamella and then left this to be spontaneously discharged. Doubtless in many cases, however, this lamella must have failed to slough, and whether this was considered a drawback or not, I do not know. Hippocrates advised against opening the skull in the vicinity of the sutures, in order to avoid the sinuses, and also gave directions for avoiding the middle meningeal artery and its branches. He furthermore recommended puncture of the ventricles in hydrocephalus, and for his procedure Heliodorus developed special indications. Hippocrates recommended prolongation and deepening of scalp wounds for exploring the condition of the skull.

Galen appears to have taken much less interest in cranial surgery than many of his predecessors. He operated only for depressed fractures, using first the elevator or trephine, and then prying up and cutting away the remaining fragments with the so-called "lenticular knife."

Gurll assumes that the most-used perforating trephine of antiquity

was a three-cornered instrument. Even in the time of Celsus, the crown trephine was provided with a sharpened pyramid in the central axis in order to make more certain the exactness of its application. Celsus' technic for trepanation in disease processes of the bone was to place the perforating trephine or the auger in one spot after another on the cranium and make multiple openings in a circle about the diseased spot, and then connect these openings with the chisel and hammer. Where there was danger of splinters being pressed against the brain, a metal plate, known as the "*meningophylax*," was placed under the bone between it and the dura, thus protecting the brain. Before closing the wound the edges of the bone were, as a rule, smoothed off. In fractures of the skull the splinters were removed with forceps by Celsus, and depressed fragments were lifted up.

Paul of Aegina did his trepanation on the day after he made his cut through the soft parts. Abulcasis, who seems to have been the only one of the Arabs to have used the trephine, mentioned, as one of his favorite instruments for removing depressed fragments of bone, a bone gimlet, or tire-fond, and also speaks of an instrument provided with a thread and a sharp point, a so-called "tripod."

Peter of Argelata, of the 15th century, extended his trepanation operation in patients who were not too vigorous, over a period of three to four days. Where the bone was thin he opened the skull merely by using a raspatory. John de Vigo made use principally of the crown trephine. Berengarius provided his trephine with a bow-like arrangement, so that by using a strap on the bow he could turn it first in one direction and then another. Ryss, of the 16th century, removed the bone up to the internal table with a rugine. Then the inner table was perforated.

Ambroise Paré and Andrea à Cruce described complete trepanation instrumentaria and added greatly to the efficiency of the cranial instruments then in use. Their principal instruments, though a great improvement over those of their predecessors, look extremely crude to us of today. Paré provided his trephine with a collar, in order to prevent its penetration into the brain substance. Mogatus, also in the 16th century, advocated the use of perforated gold or lead plates for the closing of cranial defects. Ambroise Paré was strongly opposed to this procedure on the ground that the human organism would not permit the continued presence of a foreign body in it, a conception upheld also by Galen.

Job a Meckren, in the 16th century, performed a plastic on a skull defect by implanting a piece of fresh bone from a dog; the implant healed in place. The patient, overjoyed, spread the news of his cure so extensively that it came to the attention of the church authorities, and they took so radical a stand against this unholy procedure that the unfortunate patient was compelled to have the offending canine implant removed in order to remain within the pale of the church. The second operation is stated to

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

1. *Journal of the American Medical Association*, 2000; 284: 2689-2695.

1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

100

[illegible]

reputation as a neurological surgeon, is now following the opposite route, and going from special into general surgery. Doyen deserves the credit of first using machine-driven instruments, trephines and burrs, the use of which, however, seems to be going out of vogue again. He also is the inventor of those severe extensive operations on the brain known as hemi-craniectomy, calvariectomy and the like, which have, however, nowhere achieved any particular popularity as yet. Starr was the pioneer neurologic surgeon in this country, closely followed by Cushing and Frazier, with whose work we are all more or less familiar. It is to these men and to other prominent surgeons, such as Keen, Krause, Ballance, Hartley, and many others, that we owe the development of the modern decompression operation. The name of Wagner must not be forgotten in this connection, since it is to him that we owe the flap operation, now the prevailing procedure for attacking cranial lesions.

It is rather inspiring to contemplate that all these tremendous advances have occurred in less than one man's lifetime. When I first sat on the benches at school there was no cranial surgery. I cannot remember in my undergraduate days ever to have seen an operation performed upon the brain or cranium, the fear of infection was too great. Since that time, however, I have come to see many brain lesions attacked with impunity, and with as much success as many other lines of surgical work.

My own experience has been largely confined to traumatic cases, but I have had some intracranial affections. One of the cases that remains in my memory is that of a brain tumor which I operated—one of the earliest or perhaps the earliest operated in Chicago. After the removal of the tumor I put in place of the bone a gold plate, which was the practice at that time. This healed in place. Of course, I should not repeat that technic now. This patient finally developed epilepsy, from which she died. She had had some attacks previous to the operation.

As illustrating the great value of the dura in protecting the brain, I might cite a syphilitic case which I saw some years back, which was a striking example of this fact. The patient was a young girl, in whom gummata occurred in the cranium, and resulted in the sloughing away of a piece of bone 3 or 4 inches in diameter. The skin over it also sloughed and this left a big, crater-shaped defect, with dura at the base. In spite of this slight covering to the brain, the patient appeared to suffer no ill consequences.

ULCER OF THE STOMACH, FROM THE EXPLOSION OF A GOLF BALL IN THE MOUTH, RESULTING IN DEATH.

By RUFUS G. COLLINS, M. D.

On July 1st, 1913, W. P., an unusually stout and well developed boy of 12 years, weighing 150 pounds, found a golf ball in the yard. His curiosity was aroused, and after removing part of the wrapper, he put the core in his mouth and bit on it causing it to explode. He ran excitedly into the house for help.

A nearby physician was called, who gave an emetic, and ordered milk and olive oil to be administered *ad libitum*. The boy vomited several times. I was called an hour or so later and found the boy aphonic and suffering from extreme dyspnoea. The tonsils and posterior pharynx were oedematous and frightfully swollen, and I apprehended he had an oedema of the larynx. The oedematous swellings were scarified, ice pills given frequently, an ice bag applied to the throat, and an adrenalin spray ordered.

It was with difficulty that liquids could be swallowed. Breathing was labored all night, but was considerably easier the following day, July 2nd.

A distressing cough followed requiring the use of codein. The acute soreness of the throat subsided. On the evening of July 4th considerable fever developed with rapid pulse. From this time on the temperature fluctuated from 101 to 104. Coarse and fine râles were to be heard posteriorly over both lungs, so that the breathing was still short and labored.

July 5th.—Patient vomited a large quantity of blood, had several tarry stools, and complained of burning and soreness over epigastrium and abdomen.

Dr. Goodkind was called in consultation and confirmed the diagnosis of ulcer of the stomach, and bronchopneumonia, giving an unfavorable prognosis.

The following two days nourishment was given per rectum, and salines intermittently. Bismuth by mouth. Ergatole and adrenalin hypodermically, but with no effect on the haematemesis and melaena. The pulse grew weaker, and the patient died July 7th of cardiac dilatation and asthenia in spite of vigorous stimulation.

An autopsy by the coroner disclosed a round ulcer on the posterior surface of the stomach about the size of a lead pencil.

During the past eighteen months there have been many accidents from golf balls, mostly reported by oculists. Some of these resulted in a complete sloughing of the cornea and total loss of sight, others have been fortunate enough to recover with a partial loss of vision.

A case was reported in the daily press a couple of months ago in which a boy lost his toe from the explosion of a golf ball.

Golf balls are made of strands of rubber wound by machinery around

a core, which is therefore subject to great pressure, consequently they frequently explode with a loud report.

Analysis has shown that the contents of the core varies. One was found to contain "hydrochloric acid, zinc chloride, caustic potash, and other dangerous cauterants." Another barium sulphate, soap, free alkalis, and sodium hydroxide. Spalding Bros. make a golf ball containing air or a solid core that is just as popular, and just as resilient, but not dangerous to the inquisitive boy.

On account of the many and serious accidents from golf balls the manufacturer should be prohibited by statute from using dangerous chemicals in the core. •

I have not found in the literature another case of death caused by the explosion of a golf ball.

5057 STATE STREET.

PUBLIC SAFETY.

ADDRESSES DELIVERED BEFORE THE CHICAGO MEDICAL SOCIETY
AT A REGULAR MEETING NOVEMBER 5, 1913.

THE PUBLIC BURDEN OF THE INSECURITY OF LIFE.

By MR. GRAHAM TAYLOR.

Mr. President: I wish to speak from three points of view at which I have had personal experience with the problems before us. First, as a long resident in a great tenement house industrial district of this city, surrounded by the sufferers from industrial accidents and casualties of all kinds; second, as an associate editor of *The Survey*, the magazine which made that well-known survey of the city of Pittsburgh, Pa., and, third, as a member of the Illinois State Mining Investigation Commission and the Commission for the Protection of Working People from Dangerous Machinery and Unsanitary Conditions.

The first impression one has in the retrospect of the views from these practical points of view is that the public is not aware of the burden it is bearing by reason of preventable deaths and injuries. It is only here and there that a voice is raised or a group makes protest. Usually the agitation begins with some shop's crew, or some labor union, in sympathy with some member who has met with misfortune, or some member's family who have been plunged into poverty and bereavement by the casualty to the bread-winner. Then the charity workers take it up, after some calamity makes them realize the great and sudden demands made upon the charitable funds and the slender personal resources with which they deal with these tragedies. Then some social workers begin to look for the causes and to think of the remedies in education and legislation. Employers after a while recover from their initial attitude of suspicion and

timidity and, led by a rather advanced minority, come up to the line with preventions and safeguards, sometimes without the pressure of legislation, happily often in advance of it, but more often after it has been almost forced upon their attention by the public sentiment, aroused by other groups.

One could scarcely stand at the mouth of the Cherry mines, as we on that mining investigation commission were summoned by the governor to do, without realizing the wanton sacrifice of human life and the precipitation of sorrow and bereavement on innocent people. Any man who attended, as I did, the coroner's inquest over the victims of that tragedy could scarcely fail to feel a righteous indignation at the risks that were taken with human life. That was no explosion—none of the forces of Nature were particularly involved. It was due to the lighting of a passageway between the main shaft and the air shaft, about three hundred feet apart, with unprotected kerosene torches, under which hay cars were run. Well, if you could have seen the sorrow that overwhelmed those immigrant people; if you could have seen the women, wives and mothers of the 186 men who lay dead down below; if you could have looked into the faces of 476 fatherless children, who were plunged into all the vicissitudes of half orphanage, you would realize a little bit better than statistics can tell you the public burden borne by reason of such disasters. That whole village was literally reduced to chaos. Women forgot to feed their children. The school broke up, so that one of the best things that was done was to send a truant officer down there, who got the children playing again, and then back into school. The actual buffer that had to be put in to save the living from the loss of their dead was very considerable. Any of you ladies or gentlemen who think of trades unions only as fighting machines and conspirators against law and order should have been in that little Knights of Pythias hall when we who represented the relieving and restoring agencies sat and looked into each other's faces. The first man to break the silence was Duncan MacDonald of the Illinois Mine Workers, who said that he was authorized to announce that sixty thousand dollars would be at the command of any committee that was authorized to spend it. That was the first buffer that was put in, and the fellow workmen of those men who bravely lost their lives down there were the first men to make this recompense. Then the state of Illinois put in about two hundred thousand dollars, and the Red Cross guaranteed about sixty thousand more, and the St. Paul Coal Company generously, as such things go, paid eighteen hundred dollars for almost every life that was lost. That was the greatest record that was ever made in any state to compensate for what cannot be compensated for.

I heard the governor of a great manufacturing state a few years before this, in his inaugural address, say that he had computed the average

amount paid for the death of workers by industrial accidents to be a little more than fifty dollars per death. Now, who should bear the balance of that burden? Nobody in that state or anywhere else thinks that that paid the cost. The time has come when there is a very determined and united public resolution that every trade must be compelled to carry the risks of its own human losses. Just as industries carry fire risks, so must they carry the human risks, and no longer be allowed to wring the lives out of people and then throw what is left on the scrap heap for the rest of the community to sustain by their taxation.

Very bravely our British brethren have tackled that job. No braver legislation in the world has ever been attempted than the legislation by which the British Empire is striking at the very root of dependency and impoverishment. They are sick and tired of their poor laws. They are bent and determined to prevent poverty and to distribute the burden of loss over those who should bear it, by old age pensions, by industrial insurance, and by a carefully guarded minimum wage law.

It was my privilege to bear letters of introduction, when I went abroad a few years ago, to Mr. Charles Booth, the great London shipper, who has lines running to South America, and who is one of the great freight shippers of London. He started to analyze the life and labor of the people of London. It was a colossal task. It grew out of a pamphlet that was issued by some missionaries down in East London, which was then much more of an unknown territory than it is now. These missionaries were working against odds too tremendous for them, and they raised what they called "The Bitter Cry of Outcast London." In it they stated the conditions, largely preventable, from which people were being reduced to a new sort of barbarism, the pauperism of a hopeless, abject poverty, the like of which does not exist outside of England. The Italian poverty is somewhat picturesque, but that of England, and especially of London, is terrible.

Mr. Booth wrote five volumes on poverty. He then saw that there were poverty-producing trades. He wrote four volumes on these—that is, trades which by paying less than a living wage, by their occupational diseases and by their needless waste and incapacitations of people, or killings of them, threw them on the scrap heap for the public to sustain. And then he wrote eight more volumes on deteriorating or elevating agencies, completing the greatest analysis ever made of a population. He was only a merchant-citizen, but he was a citizen who felt he owed something to his town other than to get everything he could out of it, for he said to me personally that he had only done his duty as a citizen. That man spent almost all the leisure time of twenty years and two hundred and fifty thousand dollars in producing that magnificent statistical analysis of the greatest city population in the world.

Mr. Booth drew his facts and data from secondary sources, from the

Figure 1

[illegible]

1. *Journal of the American Medical Association*, 2000; 283: 2689-2695.

showed that every year there were thirty-five thousand people killed by accidents, so-called, and about two million people incapacitated by injuries. He figured that every sixteen minutes a working man dies from preventable causes, and every sixteen seconds one of them is injured.

Now, you may think that most of those accidents are on the railways. But for every killing that takes place on the railroads or the highways, nine take place in industries. For every one who is injured by railroads or automobiles, sixteen are injured in shops. I think that you cannot conceive of those figures without realizing the absolute necessity of legislating on these subjects. Now, we are not going to stand startled by any opposition to safety laws. There are a whole lot of us who will take just what is coming to us from such selfish or ignorant opponents, and take it when it comes. Such legislation can be justly drafted. When any division occurred in the state commission, the employers took it back to their association, the workmen took it back to their unions, and we came to an agreement. When the commission went down to the legislature there was no serious opposition. I would like to know how you could have done that if both sides were not organized? What are we thinking of in trying to disorganize industrial organization? We have nothing to work with.

I wish to pay tribute to some of those advanced employers to whom I refer, who are yet, unfortunately, in the minority. The Northwestern railroad was almost the first in the field, and by its "Safety First" movement reduced the number of killed in one year from 353 to 249, and the number of injured from 10,000 to 7,100. The International Harvester Company, in a very fine way, put the safety devices on their machinery long before they were compelled to by law. The burden is being gradually distributed. The unnecessary risks are being gradually overcome.

In conclusion, I wish to express my appreciation of the new status and function which Coroner Hoffman has given to his office by leading the way in this safety movement, which has resulted in the Public Safety Commission of the City of Chicago and Cook County. It is greatly to his credit, and it is greatly to the credit of the city of Chicago that it should have been the place where this movement, which is now rapidly spreading widely over the continent, took its initiative.

I want to make a practical suggestion, Mr. President. Mr. Hoffman and I were invited just a few days ago to meet the foreign language publishers—that is, the publishers of foreign language papers. There were twenty-nine languages represented around that table, and five hundred and eighty newspapers. A gentleman from New York, at the head of the Association of Foreign Language Newspapers, offered \$2,400 to start a fund to stop the slaughter on our streets and in our shops, and he asked in return that we furnish this wonderful syndicate of papers with 18,000,000 readers, the most salient and impressive facts, so that the immigrant peo-

ples, who suffered the most from these accidents, might be put on their guard. As chairman of the publicity committee of the Public Safety Commission, I wonder whether those who present papers here tonight would not let us take at least some excerpts and give them this amazing currency. I feel, as one of the executive officers of the Public Safety Commission, very grateful for this program and for the very great publicity which the medical profession can give, and the sturdy backing they can furnish this movement. I want you to understand that while it has gone off with a tremendous initiative, it is very far from being well provided for, and we are rather abashed that a thing which is so obviously essential and appeals to every instinct of humanity should have had quite so slow a start toward providing for the very moderate expenses in the maintenance of the executive offices of the commission. We are just public servants, and we are trying to do what we can, but it is just such groups as these that can give currency and widespread efficacy to this movement.

SAFETY FIRST.

By PETER M. HOFFMAN, CORONER.

The subject upon which I am to speak is public safety. We all believe that we are living in an age of conservation. This government has made and is making a tremendous effort to preserve the natural resources of this land. It is sad to say, in the face of facts and figures which I will give you later on, that some in both this state and the nation are not making a magnificent or tremendous effort to save the lives of the people of this land who meet their deaths by industrial accidents and strikes. You would be surprised if I were to tell you that in continental United States there were 123,248 coroner's cases during the year 1912. It is needless for me to say to you, if you please, that this means sadness and sorrow in many homes. It is needless for me to say to you that this number means 40,000 more people than have been killed in any of the wars that have taken place in the world during the past five hundred years. If it is necessary for this land to preserve its natural resources, it is necessary that we make a tremendous effort, a united effort, to preserve the lives of our people.

During my tenure as coroner of this county, covering a period of over eight years, my office has held upwards of 38,240 coroner's cases. This also constitutes quite an army, and means sadness and sorrow in many homes in the city of Chicago and in the county of Cook, with its 2,306,248 people in the year 1913. I might say to you that this great army, this great human slaughter of over 38,000 people is due to a combination of causes. It demonstrates that we have all forgotten in our walks of life,

regardless of what our vocations may be, to exercise ordinary care and precaution, because the statistics of my office will show that about 70 per cent of this tremendous loss of life is due to the carelessness of the general public. The other 30 per cent is due to the reckless and heedless. I have coped with the situation for upwards of eight years. The office has made over four hundred recommendations that I believe have had a tendency to save upwards of one hundred lives every year. Regardless of this fact, however, accidents and coroner's cases have been on the increase. The coroner's duty, ladies and gentlemen, is not a pleasant duty, but it is a humane duty, and I am going to cite to you tonight just a few things that the coroner has to do with.

During the first two or three years of my tenure in office, we averaged forty, fifty and sixty deaths a year, due to bathroom asphyxiation. We averaged forty, fifty and sixty cases a year in the cooling plants at the Union Stock Yards of this city, due to ammonia asphyxiation. And, as Mr. Taylor stated to you, only a few years ago, four miles out here in Lake Michigan, there exploded one thousand pounds of dynamite which sent seventy-nine lives into eternity, because of the inexperience and the lack of knowledge of the man or men who handled that high explosive. I wish to say to you that on the morning of that crib disaster I repaired to the scene of the accident, in company with other officials, on the tug Morford, and before we reached that crib our clothes were frozen to our bodies because of the cold and the spray from Lake Michigan, and when we arrived there we saw lying upon the so-called mud pile and in the ruins of that crib twenty-nine men whose bodies were burned beyond recognition, and not one of them was ever identified. We left that crib with the tug Morford, with seventy-nine human bodies on its deck, and when we came within a few miles of South Chicago harbor we encountered a mile and a half of eight-inch ice that had not been broken, and as that tug ran upon that ice and broke it, large sheets would come up on the side and fall over on to the deck of the tug. The wind blew the tarpaulin off of those bodies and washed some of them into the lake, that have never since been found. And I want to say to you that the first thought in my mind while breaking that ice was my wife and my children at home, because I did not believe that we would reach South Chicago harbor, but I did believe that we would reach that harbor from whence no one has ever returned. And when we finally reached South Chicago harbor there were twenty thousand people, come for the purpose of identifying their dead. But not one of them was identified. I called into conference that evening, after midnight, all the clergymen of South Chicago, regardless of creed, nationality or color, and called for the good citizens, and we had a meeting in that town hall which lasted into the lone hours of the morning, and we finally came to the conclusion that it was necessary to inter those remains very quickly, because of the conditions of which I have spoken, and

at two o'clock the following day the church bells in South Chicago, all over South Chicago, tolled their funeral chimes, and services were held in every institution. And as that funeral procession left for its destination, three miles long—seventy-nine hearses and I don't know how many carriages—it was a heart-breaking sight. When we arrived at the destination we found a grave dug in the shape of the letter "L." It resembled the foundation for a large building. And there stood upon the brink of that grave over twenty thousand people, and I still sometimes hear ringing in my ears when I think of that horrible disaster the cries of widows and orphans standing upon the brink of that grave, with their hands raised to heaven, crying aloud: "Father, Father, are you here? Are you here?" The coroner's duty is not a pleasant duty, but a humane duty.

I speak of this to show you what one man can do—and this is not said egotistically—and what can be done to curtail the coroner's cases, such cases as I have spoken of, by a united effort upon the part of such men and women as we have here tonight. This terrible loss of life was due to the inexperience of these men handling these high explosives. The jury in that case caused an ordinance to be passed that all men handling dynamite must be compelled to get a permit in the city hall, and to undergo an examination showing their fitness for handling such dangerous explosives as I have spoken of, and since that time, thank God, we have had but few deaths due to that cause.

Talking about ammonia asphyxiation at the Union Stock Yards, all the large plants in the stock yards are cooled by the so-called ammonia system. Thirty, forty, forty-five and fifty lives a year, due to the bursting of these pipes and the spreading of these poisonous fumes.

The last horrible disaster I am going to call your attention to was in a room, fifty feet wide by one hundred feet long, where thirteen workmen were employed putting up stanchions, and doing this caused some little vibration in that building. Down came those ammonia pipes, which had been fastened to the ceiling. The thirteen men were killed on that floor, and, passing through the elevator shaft in the rear of the building, the fumes went to the floor above and killed two hundred and fifty head of cattle. It was one week before your humble servant and a jury could go into that room. They used large rotary fans for the purpose of fanning out these poisonous fumes, and when we did arrive those thirteen men could not have been identified had it not been for the numbers they wore upon their clothes. I picked up a hammer used by them, and with an ordinary saw I could make a hole through that pipe. It had rusted from the outside and corroded from the inside. Those pipes are under a heavy pressure. What was done? A jury of the representative business men of Cook county recommended the passage of an ordinance that all pipes in all buildings in the city of Chicago that convey poisonous fumes,

and are under pressure, should be examined, just as boilers are. It took two additional men in the boiler department of this city to make such inspections. They condemned thousands of dollars of pipes in the stock yards in this city, but in place of having thirty and forty deaths a year, as we had, four, five and six is the limit.

I speak of these things not egotistically, but because, with a united effort in conducting a campaign of education along these lines, we can do a tremendous good, can save thousands of lives that are being lost from year to year in our city. What shall we do? What can we do? What can we do to make this and other cities safer for us to live in and for us to bring up our children in? We must conduct a campaign of education and publicity. We must make a tremendous united effort. We must investigate the laws that now govern, and we must assist in the passing of new laws that will make life safer and employment more secure. Because men killed in shops, factories and upon the streets of this city generally come from the young and industrious set, who are making their way in life. Their financial resources are usually small, and they almost invariably leave a widow with numerous children. These children are brought up upon the streets of our cities, without proper food, care and education. They often have their choice between sacred poverty and public alms. The former humiliates them, and the latter brutalizes them. Then you wonder why so much bad citizenship exists. I have gone into many a humble home where the bread winner has been taken away, and observed the widow and numerous children crying for bread and not knowing where the next morsel of food was coming from.

Curtail and eliminate industrial accidents and you curtail and eliminate bad citizenship and immorality. What will you do? What can be done? What shall we do to make this a safer and a saner city? As I said, I have coped with this same situation for eight years. I conceived the idea of forming a public safety commission. I called into my counsel a number of representative men of this city and suggested the idea to them. As Mr. Taylor has said to you, in three weeks this commission was fully organized. It is the object of this commission to conduct a sane campaign of publicity and education. It is only about seven or eight weeks of age. On Friday last, a week ago, members of this commission and the good citizens of this city reached sixty thousand school children on the North Side of this city and preached public safety to them. I wish to say to you that 75 per cent of the men, women and children killed upon the streets of this city are killed outside of the street intersections, either by crossing the block in the center, or outside of street intersections, by playing upon our public streets, by hitching on to automobiles and vehicles of all kinds. The children of our public schools are drilled against the dangers of fire. We are now drilling them against the dangers that they

encounter in their daily walks of life, because there are seventy-five children killed on the street where there are ten killed by fire. We are getting right into those homes. A week ago last Sunday the gospel of safety first was preached in one thousand churches in this city. That is doing some good. And I had the honor on Monday afternoon last to talk to one thousand high school pupils in the assembly room of the Oak Park High School, and Professor Hammond, one of the greatest educational men in this land, said: "Mr. Coroner, this is one of the best and most tremendous pieces of work that has ever been done. You can have my assembly hall and my pupils for an hour at any time you want them, when you talk to them as you have talked to them today."

It is true that we have forgotten to exercise ordinary care and precaution. It is also true, if you please, that each and every one of us, no matter what our vocation may be, are placing our lives from day to day and from hour to hour in constant, unnecessary danger. We are traveling too fast a pace. We must check the fast pace we are traveling, and if you saw as much of the dark side of life as I have seen, I believe you would all agree in what I have said. I am not going to preach you a sermon, but we all know that this life is short, and when the time comes that we are called to go from natural causes it is much too short. It is sad for us to lose our father and mother, sister or brother, when we expect the inevitable to happen, but when you have seen what I have seen during my tenure of office—many a father and many a mother, many a sister and many a brother who kissed their loved ones good-bye in the early morning, and in a few hours they would be brought home in cold death—the shock then is much more severe than that when we expected the inevitable to happen.

Will you assist in conducting the campaign to make this a safer and a saner city for us to live in and for us to bring our children up in, in the face of the conditions that I have spoken of?

On the other hand, if you please, we have the reckless and the heedless. We have the speed maniac, who often operates upon the streets of our city and county a high-powered automobile, with utter disregard for human life. He sits at the wheel, a nervous wreck, with his eyes sticking out, his sole ambition, "How fast can I make this thing go?" He sometimes goes through without killing anyone, but he leaves in his wake death, ruination and destruction in many instances. Those are the men that the Public Safety Commission wish you to report, if you notice them doing what I have said. Those are the men whom we wish to apprehend and make them be law-abiding citizens. On the other hand, we have the rich man who owns a high-power car, with plenty of money, going through our streets as I have mentioned, and when he is fined he will pay that fine—especially the young fellows—and the next day it is a huge joke. I believe that there should be in connection with that fine for flagrant violation of the

law of that kind either a Bridewell or a jail sentence, and if that be done you will get rid of some of the recklessness of which I speak. I want to say to you that it is only a few weeks ago that I took my family out riding in the country, on Milwaukee Avenue, between Libertyville and Chicago, on a Sunday afternoon. I saw a dozen machines traveling upon that street where the chauffeur at the wheel was so intoxicated that he could hardly sit up straight! They were shooting by at thirty and forty miles an hour. Those are the men whom we wish to catch, that we want you to report to the Safety First Commission, room 1338 Otis building, because when you do the executive committee of this association will write that man a letter. Your information will be absolutely confidential and there will be no names mentioned. We will write him a letter, calling his attention to the fact that he is not only endangering his own life, but that he is also endangering the lives of those he meets on the highways and by-ways. We will keep an index of those violations and if he does not desist from breaking the law and is reported again, then we will see that he is prosecuted to the fullest extent of the law. It is the intent of this commission to conduct a sane campaign of education and publicity. It is your duty, as American citizens, when you notice these violations to report them to this committee. It is also your duty to assist us, as Mr. Taylor has said, in a financial way, if you possibly can. I am not here to ask quarter from anyone, but this commission cannot exist and cannot be run as it should be run without proper funds, because I think we are going to do a tremendous good, and I want to say to you that we ask your cooperation, we ask you to do your duty as American citizens, we ask you to preach the gospel of safety first, safety last and safety always, and when you do that you are doing a duty you owe to your God, to your family, to your neighbors and to yourself.

THE CONTROL OF THE SALE OF POISONOUS DRUGS PURCHASED FOR THE PURPOSE OF SUICIDE.

By FREDERICK A. JEFFERSON, M. D., CHICAGO.

Mr. President and Members of the Society: The general subject of suicide assigned to me on the program for this evening is far too broad to attempt to discuss in the limited time at my disposal. The hour is growing late, and there are four gentlemen to follow whose remarks will prove of great interest. Therefore, with the approval of the Secretary, I am going to limit my brief remarks, with a few digressions, to that phase of self-destruction which has to do with the feasibility, possibility and desirability of regulating the sale of poisonous drugs purchased or obtained for this purpose.

Suicide, or self-murder, has been committed from time immemorial. It may be defined as the act of designedly destroying one's own life. To

constitute suicide legally, the person must be of years of discretion and of sound mind. Among ancient peoples there was no disgrace attached to it. It was considered neither criminal nor dishonorable. Demosthenes, Marc Antony, Cleopatra, Hannibal, Mithridates and Cato chose this method of relieving themselves of the burdens of life. Biblical history furnishes as examples—Samson and Judas Iscariot. In Japan at this day there is no stigma attached to suicide.

Many writers of note have defended it, notably Gibbon, Hume and Schopenhauer. At times it becomes epidemic. In Versailles, in 1793, there was a notable one in which thirteen hundred committed the act. An epidemic also occurred in the army of the first Napoleon which was stopped only by a strong appeal made by the emperor. We have had many epidemics in later times, the most recent following the death of a Southern banker who had taken bichloride of mercury tablets. The case was given wide publicity and an epidemic of bichloride suicides followed.

In order to establish clearly the scope of these remarks, let us define a poison. A poison may be defined as any agent capable of producing a morbid, noxious or dangerous effect upon anything endowed with life. All medicines possessing sufficient activity to be of much value are always poisonous in inordinate or excessive quantities, and everything poisonous is capable of proving medicinal in suitably reduced quantities. The ancient Greeks employed the same word for both a medicine and a poison. According to the popular notion, those articles only are poisonous which are capable of producing dangerous or fatal effects in comparatively small quantities. It is, I am sure, clearly comprehended that an attempt to regulate the sale of all medicines or drugs which, according to the definition given above, are poisonous, would prove a task impossible of fulfillment. Therefore, it would be wise to make a further limitation in dealing with this subject and limit our discussion to those drugs which are commonly known and used as poisons.

Through the courtesy of our distinguished guest, Coroner Hoffman, I have been furnished with the following data: In the city of Chicago, during the four years ending 1911, there have been recorded 2,023 suicides; approximately 25 per cent of these were caused by poison. This, of course, does not include the large number of suspected but not proved suicides, so-called accidental poisonings. According to the coroner's statistics of self-inflicted deaths due to poison, I should judge that the yearly rate for the past ten years has not increased. It is true that there is an actual increase, but this is proportionate to the increase in population. In fact, a decrease is to be noted.

The annual average for the past nine years is about 120. These figures, of course, refer to suicide by poison only. Sixty per cent of all suicides were over forty years of age. Taking the year 1911 as an illustration,

let us look at the different poisons used and the number of deaths caused thereby:

Carbolic acid heads the list with 95 deaths; cyanide of potassium, 12 deaths; laudanum, 7 deaths; corrosive sublimate, 6 deaths; arsenic, 6 deaths; pennyroyal, 6 deaths; strychnia, 4 deaths; narcotics, 3 deaths; Rough on Rats, 3 deaths; wood alcohol, 2 deaths; HCl, 2 deaths; paris green, 1 death; phosphorus, 1 death.

The one suicide by phosphorus suggested to me an investigation of different poisons used in different communities and countries. In rural life paris green and laudanum are most frequently used, probably on account of these being found in almost every farmer's cupboard, paris green being an insecticide and laudanum a household remedy. Phosphorus is largely used in European countries, a tea being made from the heads of sulphur matches. Saturated salt solution or the brine from sauer kraut is used in certain parts of China, and from reported cases this is a very fatal method.

Dr. Hoffman, actuary for one of the large life insurance companies, estimates that in the year 1911 there were fifteen thousand suicides in these United States. Thirty-seven hundred and fifty of these were caused by poison, and for the first time in the history of vital statistics the percentage of rural suicides exceeded the percentage of those committed in the cities.

The proportion of male to female of three to one holds the same the world over, for while women desire death as do men, it might be said that they are lacking in courage, and are more strongly influenced by moral and religious principles, and it might be added that they are not exposed so largely to temptations and vicissitudes as are men.

Investigation of the suicide rate in other countries discloses that France leads with 238 per million; Spain lowest, with twenty per million, while the United States ranks fifth, with an average of 207 per million.

The old Roman law dealt very leniently with suicide, even to the extent of legalizing it under certain circumstances. The early English law considered suicide as a felony, punishable by a forfeiture of land in case it was committed to escape conviction for a crime, and by the forfeiture of goods in all other cases. Later English law imposed the forfeiture of goods and chattels in all other cases. This law was evaded frequently by a finding of the coroner's jury that the suicide was insane, and was abolished in 1870.

In the United States suicide is not treated as a crime. However, it is deemed unlawful. At common law the person who kills another at the latter's request, or persuades another to kill himself, or who agrees to join another in committing suicide is guilty of murder. This is still the rule in England. An unsuccessful attempt at suicide is a common-law misde-

meanor. In some of the United States such an attempt is punishable as a statutory felony. In the city of Chicago the charge is usually disorderly conduct.

Now, as to the laws regulating the sale of poisons, let me briefly summarize them: The state of Illinois requires every druggist to register the sale of cyanide, prussic acid, arsenious acid, bichloride of mercury, four poisonous drugs. This law is practically never observed. If it could be amended and made to include all of the commonly known poisons, a fair illustration of which I have given in the list of suicides caused by poisons for the year 1911, it would be an improvement. Lysol, chloroform and others might be added to this list. By registration is meant that the druggist keeps a book in which is recorded the date, amount and sale of all poisons mentioned above. The purpose of compelling registration is to compel the druggist to interrogate the purchaser. The city code prohibits the sale of carbolic acid of a strength to exceed $33\frac{1}{3}$ per cent.

For years the Retail Druggists' Association of Chicago have attempted to have passed a law of this kind. They have failed on account of opposition from the rural communities, particularly the farmer. Drug stores are remote in the country, consequently it is necessary for most farmers to keep a supply of poisons and other drugs for household and domestic use.

We have an excellent city ordinance regulating the sale of the so-called habit-forming drugs, which prohibits the sale or gift by any druggist or other person of any morphine, cocaine, alpha or beta-eucaine, chloral hydrate, or any salt or derivative of the foregoing, or any preparation containing them, except upon the written prescription of a duly registered physician, the *R* to show date, name, address of purchaser, not to be refilled, and open to the inspection of the prescriber, the State Board of Pharmacy and all officers of the law. The wholesaler is compelled to keep a record of each and every sale of the above-mentioned drugs, the date of sale, and to whom sold. It is also made unlawful for any physician or other person to prescribe or give any of the above-named drugs to any person addicted to their habitual use. The penalty provided for violation is a fine of not less than fifty dollars nor more than two hundred for each offense. This ordinance is rigidly enforced, and I believe it is utterly impossible to obtain any of these drugs from any drug store in Chicago without complying with the provisions of the ordinance. A federal or state law based on this ordinance would be a further check, especially in other communities. The law should be made to include the source of supply, that is, the manufacturer. If the manufacturer were compelled to keep a record of his sales to the wholesaler, and the wholesaler in turn compelled, as he is, to keep a record of his sales to the retailer, these three could be easily checked up by a duly constituted authority, and we would soon be able to ascertain the reason why a drug store whose legitimate use

of cocaine would call for one ounce annually was dispensing from twelve to fifteen ounces.

Suggestion is a most potent factor in the cause of suicide. If it were possible to induce the newspapers to withhold the details of suicide, especially the method or drug used, many would be prevented. Legislation in this direction is impossible. Public opinion could do much. Permit me to digress from the main subject and formulate a few rules regarding the use of poison. In purchasing poisons for domestic purposes, ask the druggist for a non-poisonous substitute. If no substitute can be used, purchase only enough for use on one occasion. If there be any left, destroy it.

Never keep any drug about your house, poisonous or non-poisonous, which is not plainly labeled. If it be absolutely necessary to keep poison about your premises, see that they are kept out of reach of children, and that they are not shelved indiscriminately with other simple household remedies.

Never grope about in the dark to obtain a laxative pill or a dose of any medicine. Turn on the light—read the label.

Mr. President, I take this opportunity to present a resolution:

Be it Resolved, That the President of the Chicago Medical Society appoint a commission, composed of the coroner, two physicians, two pharmacists and two laymen, to investigate and later formulate a law regulating the sale of the more commonly known poisons.

In conclusion, I desire to offer my thanks to those present for their indulgence in listening to these rambling remarks, and I also take occasion to express my gratitude to Coroner Hoffman, Dr. R. B. Preble, Dr. W. W. Quinlan, and to the Vice-President of the Chicago Retail Druggists' Association, Mr. Julius H. Riemenschneider, for valuable assistance and statistical data.

TETANUS.

By D. N. EISENDRATH, M. D., CHICAGO.

The disease which we medical men term tetanus and the laity "lock-jaw," from its earliest and most striking symptom, is not a disease of modern times. The combination of a locking of the jaw and of muscular convulsions following injuries was known and described by Hippocrates many centuries ago. He even called attention to one feature, the preference of the poison for the nerves, which was not proven until within recent years. The germ which causes such havoc in the human being is a harmless inhabitant of the intestine of some of the lower animals, especially sheep and horses. This explains why street and garden dirt when forced into a wound will cause tetanus. The bacillus of tetanus, first isolated and cultivated by Nicolaier and Kitasato, is deposited through the manure

stimulation of the motor nerves by the tetanus toxin, all of the spinal sensory nerves are "ready to fire," so to speak, and will respond to the slightest stimulation, such as the stroke of a feather across the skin. This condition which characterizes a well-developed tetanus case may be compared to a battery of guns ready to be discharged by the slightest touch imparted to a telegraph key, transmitted to the battery. It is this constant discharge of energy through the motor nerves which reduces the patient's resistance and death is due to exhaustion from the excessive muscular contractions. If we can tide the patient over this period and diminish the number of motor explosions, the battle is won. Cases of tetanus are, fortunately, not always of the acute, severe type just described. There are many in which the symptoms develop slowly and less stormily. These sub-acute and chronic cases are much more favorable to treatment than the acuter ones. The influence of the tetanus poison on the nervous system has an apt analogy in everyday life. If a cable of telegraph wires capable of easily transmitting 1,000 messages an hour should be suddenly forced to carry 100 times as many, the rapid succession of impulses would soon exhaust both the force sending the messages and those receiving them. Such is the problem in tetanus. If we can prevent such a congestion of work as to save our telegraph lines (the motor nerves) from carrying the toxins to the spinal cords, it will not be necessary to overwork the nerves running from the spinal cord to the muscles of the body and thus we save the patient from the muscular contractions which rapidly exhaust his strength.

If we wish to still further improve the statistics of tetanus, we must emphasize the necessity of "the ounce of prevention" and not place our faith on the "pound of cure."

The first and most important lesson which both physician and layman must learn is to open widely all wounds of the kind which could have carried dirt from the surface into the deeper parts. We should not content ourselves with cleansing or disinfecting the surface around the point of entrance of the blank cartridge, nail, etc. This will do no good whatsoever. The germ of tetanus grows best in closed cavities and we must open the door widely and remove all of the foreign material and sloughs. I have made it a practice in every punctured or blank cartridge wound, if conditions permitted, to anesthetize the patient and place an Esmarch constrictor on the extremity well above the wound, so that one could see into all parts without being disturbed by the constant flow of blood. The skin edges are now cut away so that the opening in the skin is as large as the widest part of the wound in the soft parts, thus avoiding any possible chance of retention of secretions. All foreign bodies, such as portions of blank cartridges, sloughs, etc., are now either removed with tissue forceps or cut away with scissors. If the wound is one due to a rusty nail penetrating the plantar surface of the foot, I usually make a counter incision on

the dorsum. The entire wound is now swabbed out with a 3 per cent sol. of tincture of iodine ($\frac{1}{2}$ of the usual strength sold), and loosely packed with gauze. No attempt is made to bring together the wound edges unless the bleeding is excessive, when the constrictor has been removed. The poison is transmitted so rapidly from the wound into the motor nerves that every hour counts. The laity must be taught that punctured wounds and compound fractures require immediate attention by one who fully appreciates the conditions under which the tetanus bacillus grows and how it sends its poisons to the spinal cord. In addition to the thorough opening and disinfection of the wound, we invariably inject 1,500 units of tetanus antitoxin as a preventive measure.

The transmission of the toxin into the motor nerves begins almost immediately and the object of this dose of antitoxin is to neutralize whatever toxin may already have been absorbed.

These three factors, first, the thorough treatment of the place of manufacture of the toxins (i. e., of the wound); second, the neutralization of the toxins already absorbed by the prophylactic dose of antitoxin and finally the work of education by various agencies preaching the gospel of prevention of accidents, have combined to make tetanus less of a nightmare and reproach to civilization. In this latter connection, I would like to add my tribute of praise to the work of the daily and medical press. No more eloquent or convincing argument is needed than a glance at the statistics compiled every year by the Journal of the American Medical Association.

If you have never looked over these statistics compiled by our Journal of the American Medical Association workers, let me urge you to look at the last one. It is the eleventh annual summary of Fourth of July injuries and appears in the August 30th, 1913 number of the journal. Blanks are sent annually to every hospital, health officer and many physicians in the United States, asking for a report of the Fourth of July injuries treated by them. Only four cases of tetanus were reported this year as compared with seven in 1912, eighteen in 1911, seventy-two in 1910 and one hundred and fifty in 1909. This means that in reality the lives of hundreds of children are being saved through the combined efforts of those who are educating the people to celebrate a sane Fourth and the more intelligent treatment of such wounds by medical men. Only 10 years ago nearly one-fourth, 417 of 1,672 blank cartridges injuries, developed tetanus. Cases occurred in only three states this year as against six states in 1912, ten states in 1911, eighteen states in 1910, and twenty-five states in 1909. After reading this last report one feels like asking that a Carnegie medal be given to those who are responsible for the reduction of the annual slaughter of the innocents, perpetrated under the guise of an insane mode of celebration of our national holiday.

Before closing this attempt to give you a bird's-eye view of the nature

and mode of prevention of tetanus, let me direct the attention of my medical colleagues to some of the newer ideas as to its treatment. To those of you who wish to study the subject in detail I can most warmly recommend the reading of an article by Ashhurst in the July, 1913 number of the *American Journal of the Medical Sciences*. I am indebted to Dr. Ashhurst for a rude jolt given to my previous conception of how to treat a fully developed case of tetanus. I believe that I am not exaggerating facts in saying that until I read the array of statistics gathered by Ashhurst, I was one of many who felt they were doing their full duty in injecting tetanus antitoxin subcutaneously in large doses. The recent discovery that the tetanus toxin is conveyed to the spinal cord through the motor nerves has completely revolutionized our former methods of administering the antitoxin. It is like trying to rout a powerful enemy by firing at him with a rifle as compared to the effective work of a Maxim gun directed at his most vulnerable place. One cannot deny that even the subcutaneous injection of antitoxin has saved lives. Before its use, the mortality of tetanus was nearly ninety per cent. This was reduced to fifty-five per cent through the use of antitoxin and this comparatively slight decrease in the number is of therapeutic value in a well developed case. Of the various methods of administration we can dismiss four of them as either impractical or superseded by more modern methods.

These four are (1) subcutaneous, (2) intravenous, (3) intramuscular, and (4) intracerebral. In the subcutaneous method the antitoxin reaches the motor nerves by a circuitous route via the lymphatics. To give enough antitoxin by this subcutaneous method is not only very expensive, requiring 15,000 to 18,000 units every three hours, but is a great waste as very little reaches the actual seat of the poison in the motor nerves. The objection to the intravenous method is that although it neutralizes much of the toxin in the circulation, it does not reach the toxin in the cerebro-spinal fluid.

The intramuscular method has not been employed in any large series of cases but is a better method than the subcutaneous, especially if the antitoxin is injected into the muscles around the wound. It is easier of application than the intraspinal or intraneural methods and less painful but is inferior to them. The intracerebral method is valuable in experimental work but is of little value when applied to the human being. The two methods which give the most encouraging results at the present day are the intraneural and intraspinal.

The former (intraneural) was first employed by v. Hacker in 1902. It is based upon the fact that most if not all of the toxin reaches the spinal cord by traveling up the motor nerve trunks. If we expose the larger nerves leading upward from the wound and inject the antitoxin into the nerve it is the logical method of neutralizing the toxins in these nerves

and one of the best methods of reaching the toxins in the spinal cord; 1,500 units can be injected daily into the sciatic and 750 units into the anterior crural and obturators. One should try to inject some nerve leading from the source of infection, at a point as near to the spinal cord as possible.

The intraspinous route (subdural injections), is carried out by the use of the same technique as ordinary lumbar puncture; 3,000 to 10,000 units are given according to the severity of the case. One need not repeat this dose in less than 18 to 24 hours.

Both of these methods (the intraneural and the intraspinal) should be given a most faithful trial, as one cannot pass judgment upon their value until a large number of cases have been treated. In addition to the use of antitoxin, every drug which tends to depress the functions of the spinal cord, such as magnesium sulphate (given intraspinally) bromides, morphine and physostygmmin should be employed.

If antitoxin cannot be obtained immediately one can substitute carbolic acid as a temporary measure until antitoxin is obtained. Carbolic acid acts both antibacterial and antitoxic to the bacillus of tetanus. One can safely inject 1 cc. of a 1 per cent solution every few hours into the muscles along the spine for 24 hours. One should not use more than a total of 50 centigrams in 24 hours. The tolerance for carbolic acid in tetanus patients is amazing.

CONCUSSION, HEMORRHAGE AND SHOCK.

By DR. JOHN DILL ROBERTSON.

I have been requested to write this paper upon concussion, hemorrhage and shock, three of the greatest surgical troubles. I am reminded of a sermon preached by the Reverend T. De Witt Talmage, a number of years ago in which he took for his text, "He Slew a Lion in a Pit on a Snowy Day," and he described it as a three-fold trouble. The lion, the fiercest of all wild beasts; the pit, a confined area where there was no chance of escape; and the snowy day, making the ground slippery so that he had no opportunity for a foothold. So tonight it is expected of me that I shall treat this three-fold subject in a few minutes, and at the same time attempt to make it interesting to this audience. I am sure that most of you will agree that my troubles are almost as great as were those of the man who furnished the text for Dr. Talmage's sermon.

Concussion of the Brain.—A shaking, jarring, or shock of the brain substance produced by a blow upon the skull inflicted by a blunt weapon, by a fall, or indirectly through the spinal column by a fall upon the buttocks. In its simplest form it is unassociated with any gross lesion of the brain, but in its severest forms there may be present some minute vascular

rupture or even an actual laceration or contusion of the cerebrum. These must be regarded, however, as complications of the contusions and not as essential parts of the condition. The immediate primary effect of the blow or fall is an instantaneous stimulation of the entire cerebral cortex followed immediately by exhaustion and depression of the nerve centers, and in the fatal cases by paralysis of these centers.

Symptoms of Concussion.—In the slightest form the primary stimulation is manifested by scintillations of light, the well known seeing of "stars," with a momentary dazing of the intellect. There is associated with this pallor and coldness of the skin and slowness and weakness of the pulse. There is slight nausea with vertigo and occasionally vomiting. In the more severe cases of concussion the patient is totally unconscious. The muscles are relaxed; the respiration ratio is disturbed, the breathing being more or less irregular. The pupils show reaction to light, and may be irregularly dilated or contracted. The sphincters are relaxed, and there may be involuntary escape of the feces and urine. The temperature is subnormal, and the reflexes partially abolished. In the fatal cases the pulse soon becomes rapid and weak, indicative of exhaustion of the pneumogastric center.

The differentiation between the grades of cerebral concussions may be made by reference to the following table:

<i>Symptoms.</i>	<i>Mild Cases.</i>	<i>Moderately Severe.</i>	<i>Grave Cases.</i>
Consciousness	Lost for a few seconds to 30 minutes.	Lost for a number of hours.	Lost for a few minutes, followed by death.
Skin	Pale, cold.	Pale, cold, clammy.	Pale, cold, clammy.
Temperature	Normal, slightly subnormal.	Subnormal; followed by elevation.	Subnormal.
Pulse	Not much affected.	Rapid and small, gradually slowing to normal.	Rapid and weak; soon becoming more rapid and inappreciable.
Blood pressure	Shows no rise.	Rise, immediately after the accident.	Primary rise, but a rapid fall to death, due to paralysis of the vital centers.
Respiration	Slightly slower than normal.	Slow, shallow.	Rapid, shallow.
Pupils	Not affected usually.	Contracted or dilated equal, respond to light.	Dilated.
Other eye symptoms	Scintillations.	Absent.	Absent.
Gastric symptoms	Nausea, vomiting.	Vomiting during reactionary period.	
Mentality	Absence of memory of events prior to accident.	Absence of memory of prior events.	
Urinary	None.	Trace of sugar and albumen.	

If extensive cortical laceration has occurred there will develop a condition of cerebral irritability (Erichsen), characterized by muscular twitchings, convulsions and contraction of the flexor and orbicular muscles. The pupils are contracted; there is restlessness, and the patient shows mental irritability as well. This is a serious condition, very prone to be followed by grave sequels. It commonly follows injuries of the occipital, frontal or temporal regions.

The favorable cases of concussion soon pass into the stage of reaction. This is characterized by a gradual improving of the pulse and respiration, and a slow return to consciousness. Vomiting occurs, due to cerebral hyperemia; there will be headache for a few days associated with slight rise of temperature, and more or less indications of cerebral irritability. Neurasthenia, disturbance of the special brain functions, or a mild grade of meningitis may remain as sequels of the injury.

Pathology.—The brain lesions vary according to the severity of the case from minute ecchymoses to lacerations or even disorganization of the brain-substance. The lungs, right heart, and other viscera show more or less engorgement. The symptoms probably result from an accumulation of the cerebro-spinal fluid in the fourth ventricle with associated interference with the vital centers.

Treatment.—The first indication in the treatment of concussion of the brain is stimulation of the depressed cerebral centers. Smelling salts and inhalations of ammonia will answer in the mildest cases. Hypodermic injections of strychnin; the application of warmth to the extremities and trunk; rectal injections of hot normal saline solution or coffee, and absolute rest in bed are imperative in the more severe cases. In the period of reaction cold to the head, mild saline purgatives, tincture of aconite or veratrum viride, and remedies to flush out the kidneys will be indicated. In the subsequent care of all patients after a severe cerebral concussion it is necessary to avoid anything which will have a tendency to cerebral congestion. Rest is essential; the abstinence from business cares; restriction of the diet, and the daily evacuation of the bowels. Headache and insomnia may be relieved by the use of the bromides and milder hypnotics. When the symptoms persist unduly there is probably present some lesion of the brain and trephining may become imperative. Meningeal symptoms require counter-irritation at the nape of the neck, and the administration of calomel in suitable doses.

Hemorrhage.—In the discussion of hemorrhage I will not attempt to discuss anything except "intracranial hemorrhage."

Intracranial Hemorrhage.—Hemorrhage within the skull generally comes from one of the following vessels:

- (1) Middle meningeal artery (usually due to traumatism).
- (2) A cerebral sinus (traumatic).
- (3) The vessels of the pia-arachnoid.
- (4) The vertebral arteries.
- (5) The lenticulostriate (Charcot's) artery (spontaneous).
- (6) The internal carotid (traumatism—very rare—the cause of apoplexy).

Hemorrhage within the skull is either spontaneous or the result of traumatism. Spontaneous hemorrhage or apoplexy, is largely beyond the

realm of surgery. Traumatic hemorrhage produces marked symptoms requiring immediate intervention on the part of the surgeon. By far the greater number of cerebral hemorrhages come from injury of the middle meningeal artery which enters the skull at the foramen spinosum, crosses the antero-inferior angle of the parietal bone, and divides into an anterior and a posterior branch. This vessel because of its superficial position is especially exposed to injury; according to Treves from 80 to 85 per cent of the cases of intracranial hemorrhage come from injury of this vessel. It may be ruptured at the time of birth by the forceps or from pressure exerted by an irregularly contracted pelvis, and it is frequently injured by bullets and other forms of trauma. In only 8 per cent is the posterior branch of the artery injured. According to the direction taken by the escaped blood will be determined the three sub-varieties:

- (1) Extradural, between the inner skull plate and the dura mater.
- (2) Subdural, between the dura and the brain.
- (3) Cerebral, into the substance of the brain.

Each of these has distinctive symptoms.

(1) **Extradural Hemorrhage.**—While generally coming from the middle meningeal artery and its distribution, extradural hemorrhage may also result from a rupture or traumatism of one of the sinuses of the brain, especially the longitudinal, lateral, petrosal and cavernous. The injury of the artery usually accompanies a fracture of the vertex of the skull, but not always. It may follow a contre-coup; the blow on one side of the skull with the arterial injury on the opposite side. It is characterized by a primary loss of consciousness, due to the concussion, followed by a period of reaction, and this by a gradually or rapidly increasing coma from the pressure produced by the clot. The symptoms are those of compression of the brain, as already described. There is associated a paralysis of the side of the body opposite to the hemorrhage which increases in its scope, together with convulsive seizures of Jacksonian nature. There is an elevation of temperature which is higher on the paralyzed side.

(2) **Subdural or Intermeningeal Hemorrhage.**—This variety of intracranial hemorrhage arises from injury of the middle cerebral artery and is distinctly more serious than the preceding. The symptoms of compression rapidly develop, there is a subnormal temperature and profound depression of the vital centers. Lumbar puncture shows blood in the cerebrospinal fluid. This variety of hemorrhage is the cause of most of the cases of birth-palsy. In these cases usually it is the venous radicles of the longitudinal sinus which are injured (apoplexia neonatorum).

(3) **Cerebral Hemorrhage.**—This is the common apoplexy, although it may likewise occur as the result of traumatism. The symptoms are those of the usual apoplectic seizure.

Diagnosis of Intracranial Hemorrhage.—This is not an easy matter in

many cases. The condition is evident if there should develop after a traumatism a secondary stage of coma following the return to consciousness. In other cases the patient remains unconscious from the first, and then the meningeal hemorrhage must be suspected from the protracted period of unconsciousness, an increasing degree of coma, a rise in the blood pressure, stertorous respiration, and the appearance of paralysis. In cases of depressed fracture the pressure symptoms develop immediately; clot formation produces the symptoms a few hours subsequent to the injury, while infection with pus-formation will not give rise to pressure symptoms for from 36 to 48 hours. The presence of blood in the cerebrospinal fluid withdrawn by lumbar puncture is diagnostic of subdural hemorrhage. Pressure symptoms, also, are slower of development in this variety. The temperature is prone to rise higher, there is a greater involvement of the cortical centers, and in infants there will be a bulging of the fontanel. Hemorrhage from the sinuses gives rise to the least degree of compression, and the symptoms are very slow in their onset.

Prognosis.—This is grave in all cases. Immediate operation gives the best prognosis, but at the best it is anxious.

Treatment of Intracranial Hemorrhage.—This consists in immediate trephining over the bleeding point. As the anterior branch of the middle meningeal artery is the vessel most commonly involved, the opening in the skull should be made at a point one and one-fourth inches behind the external angular process of the orbit at the level of its upper border, that is, $1\frac{1}{2}$ inches above Reid's base line. The posterior branch of this artery is to be reached by trephining at the same level as before but just below the parietal eminence. In those cases in which there is an extension of the clot toward the base of the brain the opening should be made one-half inch lower than that indicated for the anterior branch. On exposure of the clot it must be removed, the opening enlarged, if necessary, by means of rongeur forceps, the cavity thoroughly irrigated with sterile water, and if the bleeding continues the vessel must be ligated with catgut through the dura to give it a firm hold. If ligation is impossible the wound should be packed, after opening the dura to discover a subdural hemorrhage, should it exist. Thorough drainage must be established and the dural opening closed with catgut. The treatment of hemorrhage from a cerebral sinus consists in plugging the sinus with sterile gauze over which is placed a compress of gauze. In the hemorrhages of the newborn it is necessary to perform a parietal osteoplastic craniotomy, incise the dura, remove the clot and suture the dura without drainage.

SHOCK.

By the term shock is meant a profound depression of the nervous system resulting from some active stimulus which is either transmitted to the vital centers in the upper part of the spinal cord, or from the sensory

or sympathetic nerves of an injured part of the body. The same general effect may be brought about by a disturbance of the emotional center through the nerves of special sense.

The phenomena of shock are very similar to those of hemorrhage. In hemorrhage the pulse is weak and rapid; this is likewise true in shock. In hemorrhage, blood is flowing out from the blood vessels while in shock it is being emptied into the veins of the abdominal viscera. Some one has defined shock as a condition of bleeding a man into his own abdominal veins.

The shock experienced in a given case is determined by the following factors:

First, the extent of the injury. Generally speaking the longer and deeper the cut the more nerves are injured and therefore the great possibilities for shock. Then again, the character of the injury, whether it be done by a sharp instrument or by the crushing of a car wheel. Likewise the site of the injury, the more sensitive the organ injured and the closer its connection with the sympathetic and cerebro-spinal nerve centers, the greater will be the shock.

The individual nervous susceptibility of the patient has much to do with the degree of the shock. The highly organized nervous system will suffer a greater degree of shock than that of a lower degree.

The symptoms vary with the injury inflicted, from a momentary faintness or syncope to death. These symptoms are not always commensurate with the degree of the injury, as illustrated by the oft repeated story of the student who was being initiated into a fraternity and was sentenced by his fellow students to slowly bleed to death. The dripping of warm water off his neck into a pan gave him the mental impression that he was bleeding to death and sure enough he died, but not from hemorrhage—from shock. Many similar instances are on record. The pulse is at first small, slow and weak, but may become irregular, or very rapid, or may not be palpable at all. The skin is pallid, covered with a cold sweat. Respiration slow and shallow, and the temperature usually subnormal.

Reaction usually occurs after an interval. During this reactive period it is not unusual for an attack of vomiting to take place. This is probably due to a temporary hyperaemia of the brain following the anemia of this organ which probably induced the general symptoms of shock. Reaction is frequently accompanied by irritability, either of the nervous or muscular system. In some cases this may lead to traumatic delirium which is always of grave import(erethitic), and it may happen that these conditions are due to a toxic element which has been introduced by the injury.

As a rule the symptoms of shock occur immediately after the injury, but this is not always the case. They may be delayed and may not appear until a considerable time after. The explanation of the phenomena of

shock is difficult. Reflex inhibition of the heart's action through the cardio-inhibitory centers in the medulla explains the early syncope with a slow pulse. Crile has shown that the stimulation of the central end of a divided sensory nerve at first causes a rise of blood pressure, but oft repeated this rise gradually diminishes, disappears, and in time is represented by a fall. He attributes this to exhaustion of the vaso-motor center in the medulla. The blood collects in the abdomen as a result of the paralytic distension.

Treatment.—Rest in a prone position. The inhalation of ammonia or smelling salts. Heat to the trunk and extremities. Hot drinks may be administered if conscious, with the hypodermic injection of strychnin. Occasionally it may be necessary to infuse a hot saline fluid into a superficial vein, the rectum, or the subcutaneous tissues. Adrenalin chloride administered intravenously in a 1-100,000 normal salt solution has proven a most valuable remedy.

DISCUSSION.

By DR. E. R. LE COUNT.

A year or two ago I endeavored to learn the number of deaths from tetanus in the records of the coroner's office here. I found the indexing was done with regard simply to the chief cause of death, so that, for examples when tetanus developed following injuries received in a street car or railroad accident it was necessary to consult the original files containing all the evidence obtained at the inquiries by the coroner or his deputies.

The figures I did obtain, therefore, represent deaths from tetanus when it did not complicate such injuries. The actual number of deaths from tetanus investigated by the coroner and his assistants would be much larger and I regret that they are so buried as to be practically inaccessible.

Deaths from tetanus during a period of six years:

1906.....	25
1907.....	30
1908.....	22
1909.....	20
1910.....	27
1911.....	23

I will not go into further details, except very briefly. The number of patients dying with tetanus in this way in hospitals was 111, and out of hospitals, 40. In the remaining 6 cases this point was not ascertainable, but here are 157 deaths, with an average of about twenty-three or twenty-four per year, quite regularly, for these six years, and, of course, there is no one to blame for a large part of it, except the medical profession, because this disease is perfectly preventable by prophylactic doses of antitetanic serum.

These facts indicate clearly the necessity of administering the serum in injuries which surgeons know by their nature are likely to be followed by tetanus, and at a time early enough to prevent its development.

\$2 A Year in Advance

Single Copies 20 Cents

The
CHICAGO MEDICAL RECORDER
and
JOURNAL OF THE MEDICO-LEGAL SOCIETY

NEW SERIES

PUBLISHED MONTHLY
PULLMAN BUILDING, CHICAGO, ILLINOIS

Editorial Board

DR. E. W. ANDREWS
DR. FRANK T. ANDREWS
DR. WALTER S. BARNES
DR. W. L. BAUM
DR. CHARLES C. BERRY
DR. R. W. BISHOP
DR. JAMES BURRY
DR. HENRY T. BYFORD
DR. FRANK CARY
DR. A. CHURCH

DR. E. J. DOERING
DR. H. H. FROTHINGHAM
DR. L. A. GREENSFELDER
DR. JUNIUS C. HOAG
DR. FRANK S. JOHNSON
DR. JAMES A. HARVEY
DR. FRANKLIN H. MARTIN
DR. JOSEPH MATTESON
DR. FREDERICK MENGE

DR. CHAS. H. PARKES
DR. SAMUEL C. PLUMMER
DR. ARTHUR R. REYNOLDS
DR. LOUIS E. SCHMIDT
DR. OTTO L. SCHMIDT
DR. D. A. K. STEELE
DR. HOMER M. THOMAS
DR. THOS. J. WATKINS
DR. RALPH W. WEBSTER

Committee on Publication

E. J. DOERING HENRY T. BYFORD A. R. REYNOLDS


Volume XXXV.


CHICAGO, ILL., DECEMBER 15, 1913


Number Twelve

Editorial.

The Season's Best Wishes

HRISTMAS the merry, New Years the happy, blood relatives in time and sentiment, are at our open doors again and we are glad despite those extra hazards that they bring to pocketbooks.

O TAKE the old out and usher in the new with like good cheer is a kindly arrangement of Providence. For the year as a whole is wont to suffer many shocks of pain, and needs comforting at the start and the end.

S THE waning seasons gather sombreness and pessimism begins to elbow and jostle for a place, that day of all the merry smiling days, the day of peace and charity, suddenly looms large on the calendar, trouble disappears in a flood of generosity, the children laugh with bulging stockings, all the world laughs with them, and exclaims as do we, **Merry Christmas and a Happy New Year.**

—Arthur M. Convin

MEXICO.

Little by little the daily press of the country are creating a public opinion that may eventually lead this country into a war with Mexico, and medicine should do all it can to prevent such a calamity. On the plea that American interests in Mexico are jeopardized and that there is no government there of the pattern we live under and that Mexican officials are corrupt, we are daily told that it is our duty to intervene to establish an orderly government and protect property.

No thought seems to be given to how a war will protect property, establish order or bring peace. One thing a war with Mexico would do would be to kill thousands of American men, impoverish thousands of women and children, increase taxation and extend the pension roll into the next century. That is what would happen to us, the victors. The same would happen to Mexico and to a more disastrous extent. After the Mexicans were defeated and their country policed in every corner and canon, we would still have to establish a stable government out of the same Mexicans, impoverished and brutalized by the war in which they were conquered. The alternative would be to hold the country until it was newly peopled by immigration, the present Mexicans had died of old age and their descendants educated to our methods.

Latin American countries are improving, some of them have good modern government, and the Mexicans must and will right themselves in time if left to themselves. President Wilson's method of frowning upon wrong in Mexico and his policy of keeping up his gentle pressure for right is the only way, it is the quickest way, to bring peace, order and safety in that unhappy country.

Those venturesome Americans who have left us and taken up their residence in Mexico usually were in search of quick and easy fortune and knew well the hazard. If now they find their adopted country unable or unwilling to protect their property or themselves, they have little reason to complain to the country they forsook. If, however, they have any claim for our protection as a nation, the best way to deal with them, or at least the cheapest way, would be to bring them back and put them and their families on the pension roll.

It is well to remember that we were engaged in a civil war but a few years ago ourselves and that both life and property were destroyed with a wantonness unparalleled in history, yet no other nation intervened.

CONGRESS OF SURGEONS.

Chicago has recently entertained the fourth annual session of the Clinical Congress of Surgeons of North America. This last meeting has

been even more useful and successful than any of the three brilliant sessions preceding.

The space and dignity given to the proceedings in the daily press reflect the growing interest and endorsement of the public in such meetings, and are in marked contrast with the extravagant and careless reports that crept into newspaper columns of the first congress also held in Chicago, four short years ago.

A notable outcome of the congress was the formation and installation of the American College of Surgeons patterned after the Royal College of Surgeons of England. Resolutions of felicitation upon the birth of the American College passed by the Royal College of England were presented by Sir Rickman J. Godlee, its president, at the installation in Chicago, November 13. Dr. Godlee also made the principal address on that auspicious occasion and outlined the history of his institution, the great good it had done, and prophesied an even greater future for the American College.

Not all the worthy surgeons of the country are yet admitted to the American College for obvious reasons, but it is worthy of note that the cause met with no opposition in its formative stage and that all who were installed had won distinction in the profession.

The conception and creation of both the Clinical Congress of Surgeons of North America and the American College of Surgeons are due to the great organizing ability and the indefatigable labor of Dr. Franklin H. Martin of Chicago. Had this ability of Dr. Martin been exercised in a commercial pursuit it would have brought him both fame and fortune, but not the high honor he now wears so worthily.

MR. A. MONTGOMERY WARD.

In the issue of November, 1909, the *MEDICAL RECORDER* editorially commended the efforts of Mr. A. Montgomery Ward in his single-handed fight to preserve the lake front of Chicago for the use of all the people.

The recent death of Mr. Ward has brought a flood of editorials in the daily press praising him to the skies for his successful efforts to keep all buildings off the lake front. There was no help for Mr. Ward from the newspapers when he was engaged in his up hill battle.

EGGS.

During the moulting season hens do not lay eggs. This accounts for the scarcity of fresh eggs in the autumn. It is a curious fact that there is no market for strictly fresh eggs. The best eggs quoted in market circles are "80 per cent fresh," the other 20 per cent are just eggs. Some dealers have a few fresh eggs,—that is, eggs known to be less than a week old.

But all such supplies come from individual producers and are more or less intermittent, owing to the failure of the hens to lay or to the whim of their owner who may send them to another market.

The present boycott of the women of the country upon the use of eggs is a good thing in more ways than one. It will bring down the price and it will be salutary from a hygienic point of view. Many persons who eat eggs do not digest them well and do not know it. Abstinence for a while will be good for them.

The food value of eggs is often overestimated. Too many eat eggs and too many eat meat, or they eat too much. A lessened quantity of both would be beneficial to the people and would reduce the cost of living.

FIGHTING TAMMANY.

The recent overwhelming defeat of the Tammany forces in New York shows what can be accomplished when the people at large take an active interest in public policy. There is so much apathy among those who stand for the higher ideals in politics that it requires the strongest kind of an appeal to arouse their fighting blood.

One of the powerful forces in the New York City election was the Laity League of that city. Under the able chairmanship of William Jay Schieffelin the social service conference of that League conducted an active campaign to bring about the defeat of Tammany. Basing their appeal to the religious sentiment of the city, irrespective of creed or sect, they urged the citizens of New York to work together and individually to put the right men into office.

The following letter sent out by Mr. Schieffelin during the New York campaign contains a great deal that is applicable to the political situation in most large cities, and undoubtedly contributed in no small degree to the decisive victory at the polls:

As religious men, we assert that the moral issues facing the city are fundamental to economic, business, political and commercial issues.

The history of Tammany administrations in the past has demonstrated that decency, efficiency, sincerity, progress and consideration of the needs of the five million inhabitants against hypocrisy, carelessness, graft and the sacrifice of innocence are burning questions to be settled on November 4. We demand that the will of the people rule the city rather than the command of a combination of special privilege and corrupt politicians.

The Police department must be kept from Tammany's hands. When that "organization" controls, plunderers become active. It will, efficiently, protect neither life nor property; its co-operation with the district attorney and the courts will be nominal; the business of the department will be slack and poorly done.

An attempt will be made to segregate, if not encourage, vice rather than repress and suppress it on the streets and in hotels, apartments and tenements. The vicious combination of the corrupt politician, the grafting policeman, the

gangster, the owner, renter and keeper of the disorderly house will wax powerful. The "system" must be crushed.

In the name of helpless infants, innocent children, unprotected youth, the suffering sick, the overcrowded foreign peoples, the ignorant and oppressed, those desiring clean recreation and the victims of the social evil, we call upon those men of the city, irrespective of sect, who believe that religion should manifest itself in individual and social well-being and well-doing, to put the right men in office.

You know what Tammany means. We want no higher death rate, no inefficient, appointed office holder, no juggling of civil service, no neglect of the weak, the sick and the imprisoned, no curtailing of wholesome municipal recreation, no return of protected gambling houses and commercialized vice, no system of graft.

On November 4 you place great power in the hands of the mayor and the Board of Estimate. They will have the spending of \$200,000,000 which you contribute. Every official elected should be a man who responds for himself and his appointees with efficiency and wisdom to the decent and wholesome will of the people.

The men of good will, those responsive to the dictates of religion, hold the balance of power. We call upon you to keep the moral issues clear and unmixed.

Tammany must not return.

Book Reviews

MODERN MEDICINE. ITS THEORY AND PRACTICE. In original contributions by American and foreign authors. Edited by Sir William Osler, Bart., M. D., F. R. S., Regius Professor of Medicine in Oxford University, England; Honorary Professor of Medicine in Johns Hopkins University, Baltimore; formerly Professor of Clinical Medicine in the University of Pennsylvania, Philadelphia, and in McGill University, Montreal; and Thomas McCrae, M. D., Professor of Medicine in the Jefferson Medical College, Philadelphia; Fellow of the Royal College of Physicians, London; formerly Associate Professor of Medicine in Johns Hopkins University, Baltimore. In five octavo volumes of about 1,000 pages each, illustrated. Volume I. Just ready. Price per volume, cloth, \$5.00, net; half morocco, \$7.00 net. Lea & Febiger, Publishers, Philadelphia and New York.

It must be a matter of gratification to all concerned that this work has within the short period of six years reached such a demand as to exhaust the first edition and justify a new one. In the present form the work is condensed into five volumes from the seven of the original edition. This has been brought about by dropping certain subjects in which little or no advance has been made in the interim and for which the readers may be

referred to the first issue. The condensation is further secured by an increase in the size of the page, by augmenting the number of pages in each volume, and by cutting down portions of the various topics referring to etiology and pathology. Incidentally and perhaps in response to criticisms of the first issue, increased stress has been laid on diagnosis and treatment.

With the practical experience of the work before the profession for six years, the editors have been able to produce a somewhat more harmonious treatise. Made up of independent contributions from a large number of authoritative writers, it necessarily varies in quality and in some respects overlaps slightly, but these disadvantages inherent to such a plan have been minimized.

No important advance in medical knowledge has been allowed to escape the attention of the reviewers, and most of all one may emphasize the fact that what is practical in medicine has received its adequate description.

The general arrangement of the work remains as before. The first volume embraces the subjects of bacterial diseases, infectious diseases of doubtful or unknown etiology, nonbacterial fungus infections, and the mycoses. As an introduction to the study of infectious diseases Dr. Ludwig Hektoen has furnished within the compass of sixty-six pages one of the most comprehensive reviews of the general nature and specificity of these infections, their source, routes of infection, dissemination, elimination, admixtures, toxins and antibodies, changes and reactions, immunity, serum therapy and inoculations.

The same wealth of illustrations, many of them colored, adds great value to the work. Judging from the first volume this edition will furnish the best reference work on medicine in the English language.

ARCHIBALD CHURCH.

CASE HISTORIES IN PEDIATRICS. A collection of histories of actual patients selected to illustrate the diagnosis, prognosis and treatment of the diseases of infancy and childhood, with an introductory on the normal development and physical examination of infants and children. By John Lovett Morse, A. M., M. D., Associate Professor of Pediatrics, Harvard Medical School; Associate Visiting Physician at the Infants' Hospital and at the Children's Hospital, Boston. Second edition. Boston: W. M. Leonard, Publisher. 1913.

This is a rare book and teaches pediatrics as it should be taught—at the bedside of the patient. Each page represents the actual patient, his symptoms, the physical examination, the diagnosis, prognosis and the treatment. This book of some 600 pages covers practically all the usual as well as unusual diseases one is apt to meet in children, and is simply invaluable not only to the student, but to every young physician in practice. The cases

are simply numbered, no diagnosis heads the article, so the reader has to think and make his own diagnosis before the section on diagnosis is reached. There is, however, a most complete index with cross references, so if the reader wishes to look up say, measles, he will not only find the cases described, but references to where measles has to be differentiated from other eruptive fevers.

The practical value of such a book needs no argument, and is self-evident. This edition has been enlarged and doubled by the addition of new cases. A chapter has been added on the normal development and physical examination of infants and children, which alone is worth the price of the book. The book is well illustrated, the text is clear, the treatment the best, and in short it is a gem and should be seen to be fully appreciated. No one even giving it a cursory glance would be without a copy.

THE PSYCHOPATHOLOGY OF HYSTERIA. By Charles D. Fox, M. D. Boston: Richard G. Badger, The Gorham Press. Price, \$2.00 net.

The very satisfactory character of this book makes the task of its review a pleasure. The eminently sane and judicial attitude of the author is manifest from page to page and throughout the volume. There is no work in English or any other language which so satisfactorily and so simply discusses, describes and explains the condition of hysteria. The ultra sexual viewpoint of Freud is conservatively handled, but the actual significance of sexual traumatism is fully recognized. The various hysterical accidents and stigmata are systematically considered, the usual great suggestibility is duly emphasized and recognized as in itself an essential stigma of the disorder.

The genesis and development of various manifestations are traced, with the presentation of instructive cases, and finally the diagnosis and treatment of the disorder are rather briefly set forth. In fact, the treatment of hysteria seems to be in the mind of the author throughout the book, so that each peculiarity being analyzed and recognized leads naturally to the proper measures for its relief. The whole book in a certain sense therefore is devoted to the treatment of the disease, for which a thorough understanding of its multiform manifestations is essential.

The physician who turns to this book for a prescription or a ready means of the management of hysterics will be properly disappointed. There is no royal road to the treatment of hysteria and the author lays stress upon the need of infinite patience, careful analysis and persistent control.

ARCHIBALD CHURCH.

BUILDING A PROFITABLE PRACTICE. Being a text book on medical economics. By Thomas F. Reilly, M. S., M. D., Professor of Applied Therapeutics, Medical Department Fordham University, New York City.

Philadelphia and London: J. B. Lippincott Co. Price, \$2.50 net.

This book, like the "Physician Himself," is simply indispensable to every young man entering the practice of medicine. It teaches him the thousand and one things not taught in the medical colleges and which the older men had to learn by hard experience.

The book before us is most excellent. Excepting as to fees, which are given rather too low in our judgment, the book is faultless and deals in a sound common sense manner with everything pertaining to a physician's life, such as postgraduate studies, where to go; positions offered in the U. S. service; state board examinations; everything belonging to the office, book-keeping, fees, visits, medical societies, professional ethics, consultations, personal manners and appearance. In short, our advice is for every young doctor to get a copy of this book. It will be worth its weight in gold to him.

THE UNEXPURGATED CASE AGAINST WOMAN SUFFRAGE. By Sir Almroth E. Wright, M. D., F. R. S. New York: Paul B. Hoeber, 69 E. 59th Street. Price, \$1.00 net. (Sent prepaid on receipt of price)

An able, interesting and exhaustive argument against woman suffrage, particularly as it applies to England. In the author's opinion woman suffrage would lead up to feminism, which would be a social disaster. He admits the excess of unmarried women in England, but believes they should seek "rest beyond the seas" and endeavor to find a husband and home abroad.

However, whatever argument may apply to England, anyone looking at the hordes of foreign voters in this country, many unable to speak the language, with no knowledge whatever of American institutions, cannot help but be in favor of giving the voting power to our wideawake, quick and intelligent native born American women.

A MANUAL FOR WRITERS. Covering the Needs of Authors for Information on Rules of Writing and Practices in Printing. By John Matthews Manly, Head of the Department of English, The University of Chicago, and John Arthur Powell of the University of Chicago Press. Chicago. The University of Chicago Press. Price \$1.25, Postage 10 cents.

This excellent manual should be in the hands of all who have anything to do with the preparation of manuscript. Indeed, it covers so many points that come into daily question in the ordinary routine of letter writing that it might well be placed in every physician's office for ready reference.

It furnishes an authoritative guide to the proper spelling of words, capitalization, punctuation, etc., gives appropriate forms of opening and closing letters, contains a list of common errors in the use of particular words and phrases, and has many valuable suggestions in regard to style.

Manuscripts prepared according to the instruction given in this little book would undoubtedly be noted with satisfaction in the editorial rooms, where much has to be endured from the carelessly prepared manuscripts which are frequently submitted. Directions are given for proof-reading, with a complete list of the marks used to indicate corrections.

CAUSES AND CURES OF CRIME. By Thomas Speed Mosby. Member of the American Bar; Former Pardon Attorney of the State of Missouri; Author of "Capital Punishment," "Youthful Criminals," "Alcoholism and Crime," etc. Illustrated. St. Louis: C. V. Mosby Company. 1913. Price \$2.00.

A sane and sensible argument in favor of modern penology and the indeterminate sentence and parole system. The author writes on the basic principle that crime is always due to a diseased mind rather than depravity, hence hospitals and reformatories should take the place of penitentiaries. The book deals with the cosmic social and individual factors of crime, the prophylaxis of eugenics, asexualization, education and social amelioration. The therapeutics are treated in chapters on the theory of punishment, indeterminate sentence and parole, with a concluding chapter on the new penology, recommending the abolition of the penitentiary and substituting the reformatory system.

While we in the main agree with the author's humane and scientific deductions, we reserve our opinion on the value of the death penalty as a deterrent of crime. We remind the author, for instance, that in all Great Britain with a population of about 40 millions, there were no more murders committed in one year than in the city of Chicago alone, with this slight difference: In all Great Britain, 212 murders with 211 hangings; in Chicago, 202 murders in the same period, but with no hangings. Figures speak louder than words. In Canada in the same period, only 13 murders to every million of population, with each murderer hung. The plain reason of the 9,000 murders annually in the United States is the fact that practically all escape hanging, with the chances ten to one that there will not even be a conviction. We believe in the death penalty, and are even crude enough to favor the whipping post for all wife beaters and those guilty of cruelty to children.

PYORRHEA ALVEOLARIS. By Friedrich Hecker, B.Sc., D.D.S., A.M., M.D., Member of the Academy of Science of St. Louis, Mo.. Consultant at Bell Memorial Hospital of the School of Medicine, University of Kansas; Consultant at St. Margaret's Hospital, Kansas City, Kansas. Illustrated. St. Louis: C. V. Mosby Company. 1913. Price \$2.00.

A very satisfactory and common sense exposition of the important subject of pyorrhea alveolaris. The author believes and in our opinion proves

that pyorrhea is not a local process, but the result of constitutional and exciting causes which lower the vital resistance of the alveolar process, gum, and the peridental membrane. The author classifies eleven varieties of pyorrhea, as for instance the diabetic, interstitial nephritic, infective variety, etc. In each variety, however, he recommends the autogenous bacterial vaccines, in addition to other local and constitutional treatment. The frontispiece shows the artificial production of pyorrhea in a guinea pig by the author, the first case on record. The book deserves a careful study.

ANATOMY AND DISSECTOR IN ABSTRACT. By Stewart L. McCurdy, A. M., M. D., author of "Oral Surgery," "Orthopedic Surgery," etc., Professor of Anatomy and Surgery (Dental Department) University of Pittsburgh; Orthopedic Surgeon Presbyterian and Columbia Hospitals; Member American Medical, American Orthopedic, Pennsylvania State Societies. Fourth edition. Published by Medical Abstract Publishing Company, 8103 Jenkins Arcade Building, Pittsburgh.

An excellent aid to the student to carry in his pocket to consult at all occasions, and thereby become not only proficient but an expert in his anatomy and dissections. That a fourth edition has been called for shows its appreciation. It conforms in a general way with Gray's Anatomy, but naturally can be used in conjunction with any of the standard works.

MIGHTY ENGLAND. The story of the English people. By William Elliot Griffis, D. D., author of *Brave Little Holland*, *The Pilgrims in Their Three Homes*, *China's Story*, etc. Illustrated. Philadelphia: Christopher Sower Company, publishers. Price, postage prepaid, 75 cents.

This interesting book, a history of the world's most wonderful people, written by an American, is well worth reading. It gives a complete synopsis of English history from the stone age to the present day, in a most readable and interesting manner, and makes the study of history a delightful pastime. We quote from the concluding chapter: "English character furnishes probably the highest examples of flexibility and conservatism. English power of adaptation to new needs, to change, and to hold on to that which is good, is at once the strongest asset and the most vital surety for the future. Over four hundred millions population are directly or indirectly under the British government. Over nearly one-quarter of the land surface of the globe, or twelve million square miles, the British flag floats, the symbol of order, law, justice, progress, and the uplift of mankind. Probably no other political structure has been the source of so many blessings to mankind as is the British empire of today."

CHICAGO MEDICAL DIRECTORY. 1913. Price, \$3.00. Chicago: McDonough & Co., 416 S. Dearborn Street.

We are pleased to note a new edition of the Chicago Medical Blue

Book. This edition for 1913 contains a list of physicians and surgeons in Cook county, druggists, medical schools, hospitals, sanitariums and medical societies. It also contains a physicians' and druggists' street directory numerically arranged, and an attempt has been made to give a classified list of physicians and surgeons in the lines of special practice.

The publishers have made every effort to have the information given as accurate and complete as possible. Some errors of course are unavoidable, but on the whole the directory is reliable and should prove a great convenience.

THE PRACTITIONER'S VISITING LIST FOR 1914. Price, by mail, postpaid, to any address, \$1.25. Thumb letter index, 25 cents extra. Philadelphia and New York: Lea & Febiger, publishers.

An invaluable pocket sized book containing memoranda and data important for every physician, and ruled blanks for recording every detail of practice. Bound in flexible leather, with flap and pocket, pencil with rubber and calendar for two years. Descriptive circular showing the several styles sent on request.

THE MEDICAL RECORD VISITING LIST OR PHYSICIAN'S DIARY. For 1914. Newly revised. New York: William Wood & Co.

The old and familiar Medical Record Visiting List for 1914 is before us and reminds us of an old friend with whom we can not do without. The arrangement is the same as in former years, containing among much other useful information the dose list of all standard drugs in the old and decimal systems, solutions for hypodermic injection, emergencies, surgical antiseptics, etc.

BOOKS, REPRINTS AND PAMPHLETS RECEIVED

THE SURGICAL TREATMENT OF CHRONIC INTESTINAL STASIS. By William Seaman Bainbridge, A. M., Sc. D., M. D., New York, Professor of Surgery, New York Polyclinic Medical School and Hospital, New York City. Reprinted from *The American Journal of Gastro-Enterology*, July, 1913.

A CONTRIBUTION TO THE STUDY OF CHRONIC INTESTINAL STASIS. By William Seaman Bainbridge, Sc. D., M. D. Professor of Surgery, New York Polyclinic Medical School and Hospital. Reprinted from *The Medical Record*, September 27, 1913.

CIRCULAR OF THE SCHOOL FOR HEALTH OFFICERS. Harvard University and Massachusetts Institute of Technology. Catalogue and announcement. Published by the School for Health Officers, 240 Longwood avenue, Boston, Mass., 1913.

FINANCIAL LETTER.

Within a few days the banks of the large cities will be actively engaged in financing the payments which always have to be made in the closing month of the year. There is every prospect that the account will be adjusted with much greater ease than appeared probable a few weeks ago, when complications in the money market were rather pronounced. Most of these difficulties have been straightened out, and, judging by the figures of previous years, bank reserves are reasonably comfortable for this season.

There is not at the moment the broad inquiry from mercantile borrowers that was seen a few weeks ago. One reason for this is the lessened demand from manufacturers who in the last few weeks have laid off a large number of men because of a slackening in trade. This recession has not gone far, and in certain industries it does not yet appear to be much of a factor. But the country as a whole is not handling today the volume of business that it transacted a few weeks ago before the reduced tariff duties went into effect. The buying power of this immediate section is almost as great as it was earlier in the year, but the business in the broad territory served by Chicago is not as active either in respect to orders actually in hand or as regards preparations for future undertakings, as is generally the case at the opening of December.

The process of adjusting business to the new tariff law is still going on. Besides that, the country has a troublesome situation in Mexico to deal with, and while the differences may be adjusted without resort to armed intervention, the excitement caused each day by the publication of newspaper articles with sensational headlines, has undoubtedly a sentimental effect. The extent of this disturbance is difficult to estimate, but it is certainly true that a successful conclusion of the negotiations looking toward the establishment of a stable government in Mexico would be an immense relief to the people of the United States. There has rarely been an instance where the public has had less exact knowledge about the main points at issue and the general status of the negotiations in an important controversy between two nations than in the case of this trouble with Mexico. There may be valid reasons for adhering to such a policy, but the situation is in many respects remarkable, and the wonder is, taking a broad view of the affair, that the uncertainty has not affected general business more seriously than it has. It is to be hoped, therefore, that Mexico will be eliminated as a factor in the outlook before long, as it looks as if a crisis of some sort was near at hand.

Work on the currency bill has progressed fairly well, and it is probable that the measure will be completed in the near future. No one knows yet what the final bill is likely to be, for it is evident that important amendments will be insisted upon in answer to objections raised by bankers in

all sections of the United States. After this agitation is out of the way it is reported that the Washington leaders will take up the work of amending the Sherman Anti-Trust law in important particulars. No definite program has been announced yet, but the situation calls for considerate treatment since the business interests have endured a great deal already in the way of unrest, interference and general distrust. The federal authorities have recently started suits against several industrial combinations, and while the litigation is still in its initial stage, the proceedings have not been calculated to make capitalists embark upon new enterprises. In other words, capital is still very timid and is likely to continue so until a saner basis of regulating the great industrial combination is arrived at by both federal and state authorities.

All the important markets of the world have an immense amount of financing to do during the next five or six months. In France the recently announced \$260,000,000 government loan is only one of a number of undertakings that have to be arranged for. In England the congestion is serious, and within the last few weeks the underwriters have been forced to take from 60 to 90 per cent of the new loans put out. In Germany there has been a good deal of forced liquidation, and the markets are ill prepared to absorb fresh security issues of any kind. In the United States the new flotations have been more moderate, and during the last month there has been relatively little borrowing by the great railroads and industrial concerns. For that reason the congestion in the security market here is insignificant compared with the glut of new issues abroad, and there are no water-logged syndicates to provide for.

High grade bonds are selling at bargain prices, and little by little the floating supply of such issues is being reduced. In this way the position of the bond market shows definite improvement, and there are signs that investment support is broadening. Within the last few weeks there has been some shrewd buying by people who are ordinarily extremely conservative in their judgment of investment conditions. Enactment of the income tax law has induced a good deal of buying of high grade municipal bonds which are not exposed to such taxation and these securities, in many instances, represent extremely safe investments. It must be remembered, however, that the normal income tax amounts to only fifty cents on the yearly interest of a one thousand dollar five per cent non-tax-exempt bond, so that for the average investor the tax exempt feature ought not to be very much of a factor. The market is full of perfectly safe bonds that are unquestionably a good purchase at prevailing quotations, and for income producing purposes ought to prove very attractive to individual investors.

The year just closing has been typically a year of unrest. It is to be hoped that the new year will bring about a cessation of the difficulties

which caused such serious disturbance during the last eleven months. Our foreign trade is satisfactory, and in the normal course of events Europe will be forced to send us a good deal of gold. That will be shipped as it is called for when trade revives sufficiently to create a broader demand from mercantile borrowers than is encountered today. Our bank position is sound, and owing to the liquidation of the last few months, a great many weaknesses which existed a year ago have been eliminated from the investment situation.

There is little doubt, however, that politics will play an immensely important part in the business and financial outlook of the next year. There are already rumors that the Money Trust inquiry is to be reopened, and that further investigations of various kinds will be started. It is probably true, that no fixed program has been agreed upon, and that no general crusade against moneyed interests will be attempted if the people resent such action. There is little or no speculation in the country today because, among other things, there is little incentive for rich men to venture upon undertakings which may be cut short or ruined altogether by legislation or by an unfriendly attitude on the part of the public authorities toward such enterprises. The average merchant is in a very strong position, but his profits are small because hand-to-mouth buying is costly and does not permit of the handsome earnings which were possible under conditions of large orders and confident buying.

The country is emerging from its difficulties all right and will be the stronger for the liquidation that has taken place. The railroads have kept out of the market so long that when they are able to raise money in the normal way once more, they will give out immense orders for new equipment. A great deal of needed construction work remains to be done, and if conditions are at all propitious it is reasonable to expect a great deal of activity next year in the industries that have been really depressed during the period when the railroads have been spending little or nothing. This suggestion is based, of course, on the supposition that no new factor of disturbance will develop to upset calculations, and that the railroads are given a moderate increase in freight rates in order to compensate them for the heavy increased payrolls which they have had to provide for in consequence of the various awards of increased remuneration for the operating forces.

THE NATIONAL CITY BANK OF CHICAGO.

RED CROSS CHRISTMAS SEALS.

The Red Cross Christmas Seal is again with us. It reminds us that the season of good will is at hand when each of us should do something towards relieving some of the sorrow and suffering in the world. Thousands of earnest men and women throughout the country, are enlisted in

the great crusade against tuberculosis, giving freely of their time and money to stamp out this dreaded disease. The bright little Red Cross Seal, which carries with it a message of the season's greeting, offers all of us an opportunity to enlist in this crusade for humanity and contribute our mite to the cause.

The fight is not a hopeless one. Since the Red Cross Seal made its first appearance six years ago the death rate from consumption has been reduced 25 per cent in some of our largest cities. Still we have upward of 1,000,000 cases of tuberculosis in the United States and the fight must go on with increasing vigor.

In no small degree has the Red Cross Christmas Seal contributed to the success of the crusade. The little stickers cost only one cent each, but each penny derived from the sales, goes to the relief of some sufferer who otherwise might be neglected. Open air camps are established throughout the country; visiting nurses are sent to the homes of sufferers; free medical



dispensaries are maintained; millions of pieces of literature are distributed annually, educating the people along preventive lines. It is a great work for humanity and the Red Cross Seal has popularized it by making it possible for all, rich or poor, to do something for the cause.

The Chicago Tuberculosis Institute, which derives its main support from the annual sales of Red Cross Seals, has done, and is doing tremendously valuable work in Chicago and throughout the state. Through its efforts many of the large employers of labor have instituted systems of medical inspection in their stores, offices and factories, through which the first symptoms of disease are detected in employes and they receive immediate medical attention.

That tuberculosis can be cured, if given the proper treatment in time, is no longer a matter of dispute. Sufferers need not seek a change in climate, which financially is impossible for many. They can be cured in the localities where they live. Experts point out the way and the funds derived from the sales of Red Cross Seals furnish the means.

Help the cause by the liberal use of Red Cross Seals on letters and packages during the holiday season. They are on sale in department and drug stores and orders may be sent direct to the Chicago Tuberculosis Institute, 1012 Otis Building, Chicago.

News Items

To Rent.—After April 1st, hours in a well appointed suite, 16th floor, East front, New Field Building. Address Dr. Gramm, 1102 Columbus Memorial Building.

For Rent.—Chicago. Modern physician's office and waiting room, fully equipped; electricity, telephone, and services of lady attendant furnished. 1124 Republic Building. Terms very reasonable. Inquire of Dr. Stern, 1124 Republic Building.

Personal.—Dr. Wilhelm Ludwig Baum and Mrs. Dwight Lawrence, both of Chicago, were married in New York City on Monday, November 24th.

Dr. Charles J. Whalen was recently appointed First Lieutenant in the Medical Reserve Corps, U. S. Army.

Dr. Engelbrectson announces the removal of his office to 1103 Tower Building, 6 North Michigan Boulevard.

Dr. Frank Andrews has purchased a handsome 14-room residence on Barry Avenue, just west of Sheridan Road.

Dr. Frank Billings, whose residence for many years was at 333 E. 22nd Street, Chicago, has moved to the North Side. His present address is 242 E. Walton Place.

Dr. George A. Zeller, superintendent of the Peoria State Hospital, has been appointed alienist of the state board of administration to fill the vacancy made by the resignation of Dr. Frank P. Norbury.

Dr. E. N. Brown, of 4700 Kenwood avenue, Chicago, met with an accident to his automobile on December 7th. During a blinding snowstorm while driving east on Congress street, he failed to see an approaching street car. His machine was caught between two cars and practically demolished, but in some remarkable way, Dr. Brown and his family escaped with minor cuts and bruises.

Appropriation for Department of Health.—Health Commissioner Young has asked an appropriation of \$1,190,278 for the Department of Health for the coming year. The actual increase over the last appropriation is \$450,000, of which \$335,000 is for reorganization of the department and increase in the staff.

Service to Cook County.—The county civil service committee have estimated that in the period from March 1st to November 1st, 1913, 273,000 hours of free medical service were given to Cook county. This includes the work of physicians and surgeons who compose the advisory committee, the attending staff of the county hospital, and other kindred medical bodies.

Bequests for Chicago Institutions.—The following bequests are contained in the will of the late Edward Morris:

Michael Reese Hospital, \$20,000; Children's Memorial Hospital and Chicago Home for Convalescent Women, each \$10,000; St. Luke's, Wesley, Mercy, Presbyterian, German, Englewood and Chicago Lying-in Hospitals, Chicago Visiting Nurses' Association and Home for Destitute Crippled Children, each \$5,000.

Nobel Prize for 1913.—Dr. Charles Richet, professor of physiology at the Faculté de Médecine de Paris, has received the Nobel prize for 1913 for medical science. He is the son of the celebrated surgeon, Alfred Richet, and

was born in 1850. In 1887 he succeeded Beclard in the chair of physiology. Among his works the most notable is the discovery of anaphylaxis, for which the recent International Medical Congress at London awarded him the prize of Moscow. Professor Richet will probably be a candidate for the vacant seat in the Academie des Sciences left vacant in the section of medicine by the death of Dr. Lucas-Championniere.

Sterilization Unconstitutional.—The statute recently enacted in New Jersey, authorizing the sterilization of the feeble-minded, epileptics, criminals, and other defectives, has been declared unconstitutional by the Supreme Court of the State. The act is held to be contrary to the Fourteenth Amendment to the Constitution of the United States guaranteeing equal protection of the laws to all, and to exceed the police powers of the State. The Court points out the danger of permitting legislatures to prescribe those upon whom the operation should be performed, since, if sanctioned, the penalty might be extended to include those regarded as undesirable by a majority of a prevailing legislature.

Death of Dr. Wickham.—Louis Wickham, M. V. O., M. D., founder of the Laboratoire biologique du Radium and physician to the Hospital Saint-Lazare, Paris, died recently after a long illness, at the age of fifty-three years. Dr. Wickham was most widely known for his researches on the value of radium in the treatment of cancers and other diseases of the skin, researches which had twice obtained recognition from the French Academy, and shortly before his death secured for him the decoration of the Legion of Honor. In conjunction with Dr. Paul Degrais he published a book on the results of his researches, which has been translated into English and German and has been read with great interest.

Clinical Evidence Proves Value of Remedies.—Medicine and law are alike in this respect, that neither can be thoroughly established. Good laws cannot be enacted on the spur of the moment; they represent the gradual growth of a social habit or custom, so that by the time the law is ready to be enacted by a legislative body it has already become a practical law among the community.

The same thing is true of a remedy. Medicine comes and medicine goes, but only those based upon logic and having proved their therapeutic efficiency by the incontrovertible evidence of clinicians continue to live and grow in popularity. Such a product is Hayden's Viburnum Compound. Its reputation rests upon a half century of actual testing at the bedside and in the physician's office, and its reliability is as dependable as that of a law which has been operating in a community for a long time.

The "Wellcome" Photographic Exposure Record and Diary, 1914.—If brevity be the soul of wit, condensation is the essence of literature. Especially is it so in these hustling days, when leisure is with many people reduced to a minimum quantity. It is for this reason amongst others that the pocket guide to photography issued under the above title obtains so wide a circle of readers. It condenses into one small volume, clear, definite and precise instructions on a very wide range of subjects. All the little wrinkles and dodges which long experience has taught the successful worker are here analyzed and set forth in simple formulae and exact directions such as help the beginner and serve as a useful reminder to the expert. Development, toning, fixing, printing, the various processes of production in warm tones and

colors, and the methods of dealing with errors of technique are explained, particular attention being directed in the 1914 edition to the green and blue toning, and the production of various colors by development and other methods. On the subject of exposure this book is the last word, containing in addition to its light tables for each month and factors for plates and films, the special device attached to the cover which tells the correct exposure at one turn of the disc. Much discussion has taken place as to the best method of calculating exposure, but there is no doubt on the subject if you talk to a man who has used the "Wellcome" Exposure Calculator. As one such photographer put it, paraphrasing an old proverb, "The proof of the exposure is in the negative."

Three editions of the "Wellcome" Photographic Exposure Record and Diary are published, one for the southern hemisphere, one for the northern, and the third, a special edition, for the United States of America.

The "Wellcome" Exposure Record may be obtained from all photo-

Protection for Physicians and Surgeons.—The prevention and defense of malpractice suits against reputable members of the profession has received considerable attention during the past fifteen years.

During that time two forms of protection have been offered to physicians and surgeons, one which provides defense through the court of last resort, if necessary; the other in the form of a liability policy. The company offering defense only, claimed that any indemnity paying feature in connection with protection of this nature was unnecessary, and in fact, provided the incentive for bringing suit, in the hope of securing a compromise settlement from the insurance company. On the other hand, insurance companies call attention to the fact that verdicts are often rendered against reputable men in trial courts where the jury has disregarded the law and evidence, but they cannot deny that where such cases are appealed to the higher courts the verdict is invariably either reversed or set aside.

The fact is that reputable practitioners do not always appreciate how much the law on the subject of malpractice favors the professional man. As a matter of fact, however, before a disgruntled patient can secure a verdict against a physician or surgeon that will be upheld by the higher courts, he must show by the expert testimony of reputable practitioners of the same school as the physician or surgeon attacked that he failed to use an accepted method of treatment, that he was negligent or careless in his administration of that treatment, or that he attempted to perform services he was not qualified to render.

If a verdict is sustained against a physician or surgeon on any or all of these grounds, it is safe to assume that he was guilty of malpractice, and it is a question of public policy as well as ethical practice, whether he has the moral right to shift the responsibility of his carelessness onto the shoulders of some corporation.

For a number of years, the Physicians Defense Company of Fort Wayne, Indiana, which was a pioneer in providing protection in this nature, was the only company which operated on the defense plan exclusively, although during that time there were ten or fifteen insurance companies which offered physicians liability insurance policies. On November 10th, this Company discontinued writing new business, having disposed of their interests to an insurance company, but men who were conversant with the situation and who still believed that a certain percentage of the profession felt that the defense plan was the most practical, organized the American Medical Defense Association under the laws of the State of Illinois as a corporation "not for profit."

The purpose of the Association, as set forth in its charter, is to protect its members from unjust attacks in civil courts in any cause which involves the professional acts of its members, such service to be devoid of all the quibbles and technicalities so frequently set up by insurance and casualty companies and society defense by "conditions," "provisos" and "limitations" contained in the policies or rules governing such defense.

In order to assure the members of confident and conservative management, William A. Montgomery, of Chicago, and William F. Hatch, of Fort Wayne, Indiana, were asked to assume the direction of the affairs of the Association. Dr. Montgomery, who is a graduate physician as well as a practicing attorney, has had nearly fourteen years' experience in this work. Early in the year 1900 he began as General Agent of the Physicians Guarantee Company, the pioneer in this business, and later was made Western Manager of the Company. On January 1, 1901, he came to Chicago and for many years was associated with Hon. Kickham Scanlan, the attorney for that Company (now Judge of the Circuit Court of Cook County) in the trial of every case defended by that Company in Cook County and in many other notable cases in other states. When the Physicians Guarantee Company was reorganized as the Physicians Defence Company, Dr. Montgomery continued his work with the new company and became widely known as an authority upon Medical Jurisprudence. He is a graduate of the John Marshall Law School and admitted to practice in several states. His medical training and education, coupled with his legal attainments and long practice and experience in the defense of malpractice suits, makes him eminently fitted for his present position as President and General Manager of the Association.

William F. Hatch, Secretary, has been the Assistant Secretary of the Physicians Defense Company at the Home Office of that Company for several years and his previous experience of over ten years with such corporations as Armour & Company and the Beatrice Creamery Company, has given him a business experience that will be of great value in his present position.

The experience of stock companies organized for profit has shown that dividends on capital stock, taxes and license fees exacted by the various states, absorbs so much of the income as to make a business of this kind unprofitable, from an investment standpoint. In view of this fact, the mutual plan has been adopted which eliminates the items of expense mentioned, leaving the defense fund free from burdens.

As the Association is solely for the protection of its members at actual cost, the matter of determining this actual cost is of great interest to each member. The membership of the Association are assured that the exact facts regarding this matter will be placed before them annually by a Board of Control, which the By-Laws of the Association provide shall be elected by the members themselves. This Board of Control will act as an auditing committee of all funds of the Association devoted to the defense of its members and will decide each year as to the disposal of the surplus remaining in the defense fund and its decision shall be binding upon the members. Two plans of disposal of the surplus are contemplated: First, to create a Reserve Fund for use in emergencies; and, second, to declare a rebate pro rata among the members to reduce the amount of annual dues for the ensuing year. For the first year or two, it is probable that the first plan will be followed.

The Board of Control, as provided for in the By-Laws, consists of five members residing in Chicago, or Cook County, and one for each one hundred

members in each different state, elected by the members residing in such state. The report of the Board of Control will be printed and sent to each member of the Association annually, thus giving him accurate information as to the defense fund. The Board of Control so far selected for Cook County consists of the following: Charles M. Robertson, M. D.; Emil Ries, M. D.; John E. Harper, M. D.; R. R. Bosworth, D. D. S.—all of the city of Chicago.

The annual dues of the Association have been placed at Ten Dollars, which is deemed amply sufficient to cover all costs of efficient and successful defense and to leave a margin for a Reserve Fund or rebate, as well.

The experience of the companies operating under the defense plan has shown that an uncompromising defense with the assurance of aggressive fight to the last ditch, is a most effective prophylaxis against the filing of suits, and this, beyond question, will be the experience of the Association.

The fact that the majority of insurance companies have been compelled to raise their rates to a point where it is really a burden to the physician to carry a protection of this nature, shows that the plan of handling the defense of malpractice suits on an insurance basis is exceedingly expensive. As a matter of fact, several of the large casualty companies are seriously considering the matter of discontinuing this line of business.

However, the various state societies, in a limited way, have been able to provide a more or less satisfactory defense to their members.

The eventual object of the Association is to nationalize the ethical defense which the various state societies have tried to afford and to make this defense complete, competent and inexpensive, and, to our way of thinking, the plan of the organization assures the accomplishment of this object; thus, even though the pioneer company in this work has discontinued business, the medical profession will still be able to secure protection on a defense basis at considerably less than they have been paying in the past.

The character of the men who have taken membership in the Association so far is evidence that the Association is going to receive the hearty support of reputable practitioners, and a hearty support on the part of the profession will assure financial success. The experience of the men who will be in charge of the defense of suits also assured that their efforts to vindicate the good name of the members will be successful. The competency of this management is well known. A selection of attorneys by the members, which is provided for in the By-Laws, places that important matter where it belongs.

To sum up the whole subject, it places at the disposal of the profession the most efficient defense possible under the circumstances and at actual cost. If there is anything in the plan of the Association that is lacking for complete protection and prevention of malpractice suits, fourteen years of experience has not disclosed what it could be that is missing.

The executive office of the Association is located at room 1305, 127 N. Dearborn St., Chicago, Illinois.

MARY.

Mary had a little calf,
But it was white as snow,
She wore her skirt slashed up the side,
And that is how I know.—New York Sun.

Index.

ORIGINAL ARTICLES

- Abderhalden "Defensive Ferment" Reaction. Holmes..... 627
- Achard, H. J. Indexing Case Histories 137
- Adams, Samuel Hopkins. Publicity Through the Lay Press..... 575
- Allport, Frank. Further Comment on School Hygiene..... 424
- Allport, Frank. School Hygiene... 250
- Allport, Frank. Standardization and Universal Adoption of Medical School Inspection..... 450
- Alsberg, Carl L. Limitations of Federal Food Law..... 486
- Anemia from Standpoint of Operating Surgeon. Byford..... 319
- Appendical Suppuration, Epigastric Pointing of. Van Hook..... 400
- Bacon, Charles S. Chicago Medical Society Banquet..... 217
- Bannister, W. B. The Medical Reserve Corps..... 23
- Bastardy Law of Illinois. Doering. 292
- Belfield, Wm. T. Chicago Medical Society Banquet..... 199
- Belfield, Wm. T. The Innocent Bystander 598
- Bevan, Arthur Dean. Chicago Medical Society Banquet..... 206
- Billings, Frank. Chicago Medical Society Banquet..... 199
- Blood Pressure Methods and Suggestions. Prendergast..... 157
- Bloodgood, Joseph C. Outcome of Cases of Cancer..... 584
- Bulkley, L. Duncan. Technique of Using Thorium Paste..... 323
- Byford, Henry T. Anemia..... 319
- Cancer Campaign Committee Report. Cullen..... 574
- Cancer, Outcome of Cases of. Bloodgood 584
- Cancer Research, Progress in.... 439
- Cancer Statistics, Value of. Hoffman 580
- Chicago Drainage. Reynolds..... 63
- Chicago Tuberculosis Institute, Report of Committee on Factories. Sachs 373
- Child Study, Development of. Mac-Millan 1
- Church, Archibald. Indications for Decompression 509
- College of Surgeons..... 343
- Collins, Rufus G. Ulcer of the Stomach from Exploding Golf Ball 638
- Corwin, Arthur M. The Hospital. 384
- Corwin, Arthur M. "Alfred C. Cotton" 625
- Cotton, Alfred C. Chicago Medical Society Banquet..... 226
- Cullen, Thomas S. Report of Cancer Campaign Committee..... 574
- Decompression, History of. Owens. 630
- Decompression, Indications for. Church 509
- Dewey, Richard. Jury Law for Commitment of Insane..... 72
- Doering, E. J. Bastardy Law of Illinois 292
- Doering, E. J. Chicago Medical Society Banquet..... 198
- Drueck, Charles J. Syphilitic Evidences in the Rectum..... 529
- Eisendrath, D. N. Obscure Fever of Renal Origin..... 43
- Eisendrath, D. N. Tetanus..... 653
- Elimination of Taste in Water. Lederer 477
- Evans, Wm. A. Chicago Medical Society Banquet..... 212
- Ex-Presidents of Chicago Medical Society. Speeches at Banquet... 187
- Favill, H. B. Chicago Medical Society Banquet..... 223
- Fever of Renal Origin. Eisendrath 43
- First Aid Instruction and Prevention of Injury. Plummer..... 584
- Frank, Jacob. Chicago Medical Society Banquet..... 188
- Gauss, C. J. Radio-Therapeutic Treatment of Carcinoma..... 582
- Gehrmann, Adolph. Vaccine Therapy 363
- Gilmore, Emma W. History of the Chicago Medical Society..... 235

- Golf Ball, Explosion of, Resulting in Ulcer of Stomach. Collins.... 638
- Gonorrheal Vaginitis Treated with Autogenous Vaccines. Wolff.... 462
- Graham, David W. Chicago Medical Society Banquet..... 193
- Green, Frederick R. Publicity in Cancer Campaign..... 579
- Harris, Abram W. The Vice Problem 94
- Healy, William. Contributory Causes of Social Vice..... 85
- Henderson, C. R. Society of Social Hygiene 596
- Hoag, J. C. Chicago Medical Society Banquet..... 208
- Hoffman, Frederick L. Educational Value of Cancer Statistics..... 580
- Hoffman, Peter M. Safety First... 644
- Holmes, Bayard. Abderhalden "Defensive Ferment" Reaction..... 627
- Holmes, Bayard. Study of Thomas Young 129
- Indexing and Filing. Achard..... 137
- Infant Mortality, Conference on. Kerr 535
- Ingals, E. Fletcher. Response at Banquet 431
- Jefferson, Frederick A. Suicide... 630
- Jury Law for Commitment of Insane in Illinois. Dewey..... 72
- Kerr, J. W. Conference on Infant Mortality 535
- Lederer (Arthur) and Bachman (Frank). Elimination of Taste in Water 477
- Lindsay, James Alexander. Influence of Disease Upon Racial Efficiency 466
- MacMillan, D. P. Development of Child Study..... 1
- Malnutrition in School Children. Wyatt 282
- Maus, L. M. Medical Reserve Corps 336
- Maus, L. M. Suppression of Vice Diseases 11
- Maus, L. M. What Shall America Do to Be Saved..... 519
- McArthur, L. L. Chicago Medical Society Banquet..... 203
- Medical Education. Webster..... 143
- Medical Reserve Corps. Bannister 23
- Medical Reserve Corps. Maus..... 336
- Medical School Inspection. Allport 459
- Melody. Instruction in the Home.. 606
- Milk, Van Derslice..... 108
- Moyer, Harold N. Chicago Medical Society Banquet..... 204
- Murphy, J. B. Chicago Medical Society Banquet..... 215
- Nose and Throat, Peculiar Cases of. Warbrick 284
- Owens, John E. History of Decompression 630
- Parker, Charles A. Pyophobia..... 592
- Patton, Joseph M. Chicago Medical Society Banquet..... 232
- Plummer, Samuel C. First Aid Instruction 584
- Pogue, George R. Treatment of Tuberculous Lesions with Vaccines 279
- Preble, Robert B. Chicago Medical Society Banquet..... 214
- Prendergast, James F. Blood Pressure Methods..... 157
- Presentation of College of P. & S. to University of Illinois..... 287
- Public Safety. Eisendrath 653
- Public Safety. Hoffman 644
- Public Safety. Jefferson..... 649
- Public Safety. Le Count 664
- Public Safety. Robertson 658
- Public Safety. Taylor 639
- Quine, Wm. E. Chicago Medical Society Banquet..... 190
- Racial Efficiency, Influence of Disease Upon. Lindsay..... 466
- Radio-Therapeutic Treatment of Carcinoma. Gauss..... 582
- Radium in Dermatologic Therapeutics. Simpson..... 412
- Reed, Chas. B. Lines to a Freudian 180
- Reynolds, A. R. Chicago Drainage 63
- Reynolds, A. R. Disposal of Sewage 257
- Reynolds, Edward. Publicity Through the American Society for Control of Cancer..... 576

- Robertson, John Dill. Concussion, Hemorrhage and Shock..... [658](#)
- Robison, John A. Chicago Medical Society Banquet..... [230](#)
- Sachs, Theodore B. Examination of Employes [148](#)
- Sachs, Theodore B. Report of Committee on Factories..... [373](#)
- Scalpels, Some Old. Van Hook... [369](#)
- School Hygiene. Allport..... [261](#)
- School Hygiene, Further Comment on. Allport..... [425](#)
- Scott, O. F. Surgical Shock..... [275](#)
- Sex Hygiene, Teaching of. Belfield [598](#)
- Sex Hygiene, Teaching of. Henderson [596](#)
- Sex Hygiene, Teaching of. Melody [606](#)
- Sex Hygiene, Teaching of. Yarros [603](#)
- Sex Hygiene, Teaching of. Young [600](#)
- Sewage, Disposal of. Reynolds.... [257](#)
- Sheedy, Bryan De Forest. Tonsillectomy [371](#)
- Simpson, Frank E. Radium in Dermatologic Therapeutics..... [412](#)
- Skinner, Edw. M. Work of the Vice Commission..... [90](#)
- Steele, D. A. K. Chicago Medical Society Banquet..... [210](#)
- Stowell, J. H. Chicago Medical Society Banquet..... [210](#)
- Sumner, Walter T. The Vice Problem [96](#)
- Surgical Shock, Right-of-Way vs. Hospital Treatment. Scott..... [275](#)
- Syphilitic Evidences in the Rectum. Drueck [529](#)
- Taylor, Graham. Public Burden of the Insecurity of Life..... [639](#)
- Thorium Paste, Technique of Using. Bulkley [323](#)
- Tonsillectomy, Results of. Sheedy [371](#)
- Tuberculosis, Examination of Employes for. Sachs..... [148](#)
- Tuberculous Lesions, Treatment of. Pogue [278](#)
- Turbinated Body, Enlargement of. Warbrick [428](#)
- Vaccine Therapy. Gehrman..... [363](#)
- Van Derslice, J. W. Milk..... [108](#)
- Van Hook, Weller. Epigastric Pointing of Appendical Suppuration [409](#)
- Van Hook, Weller. Some Old Scalpels [369](#)
- Vice Commission, Work of the. Skinner [90](#)
- Vice, Contributory Causes of Social. Healy..... [85](#)
- Vice Diseases. Maus..... [11](#)
- Vice Problem. Harris..... [94](#)
- Vice Problem. Sumner..... [96](#)
- Warbrick, John C. Enlargement of Inferior Turbinated Body..... [428](#)
- Warbrick, John C. Peculiar Cases of Nose and Throat..... [284](#)
- Webster, George W. Chicago Medical Society Banquet..... [219](#)
- Webster, George W. Medical Education [143](#)
- Wolff, Maurice. Gonorrheal Vaginitis [462](#)
- Wyatt, Bert L. Malnutrition in School Children..... [282](#)
- Young, Ella Flagg. Practical Possibilities [600](#)
- Young, George B. School Hygiene "Thomas Young." A Biographical Study. Holmes..... [129](#)
- Yarros, Rachelle. Instruction in the School..... [603](#)

EDITORIALS.

- Mexico [666](#)
- Milk and Vegetables..... [613](#)
- Milk Products..... [613](#)
- Mudlavia [169](#)
- Old Age Pension..... [249](#)
- Preparing for War..... [544](#)
- Preventing Blindness..... [611](#)
- Preventing Floods..... [249](#)
- Policewomen [441](#)
- Public Amusement..... [443](#)
- Regulating Traffic..... [493](#)
- Right Stand..... [492](#)
- San Francisco in 1915..... [545](#)
- Sanitation That Pays..... [302](#)
- School Hygiene..... [491](#)
- Sex Hygiene in Schools..... [543](#)
- Should Have Widest Circulation... [442](#)
- Simplifying Things..... [349](#)
- Smallpox [168](#)
- Sulzer, Governor..... [165](#)
- Suppressing Quackery..... [611](#)
- Vice Investigation..... [303](#)
- Vice Segregation..... [114](#)

- Woman's Clothes..... [494](#)
 Webster, Dr. George..... [54](#)
 Chicago Drainage..... [52](#)
 Chicago Medical Society..... [247](#)
 City Garbage..... [540](#)
 Congress of Surgeons..... [666](#)
 Contrast, A..... [443](#)
 Correcting an Evil..... [303](#)

 Department of Health..... [541](#)
 Drug Habits..... [542](#)

 Egan, Dr. Jas. A..... [248](#)
 Epileptic Colony..... [116](#)
 Epilepsy and Insanity..... [166](#)
 Evanston Drainage..... [348](#)

 Finger Bowls..... [612](#)
 Flood Prevention..... [350](#)

 Garbage Disposal..... [388](#)
 Getting in Line with the Times... [113](#)
 Gorgas, Colonel..... [54](#)

 Important Position to Be Filled... [442](#)

 Married School Teachers..... [612](#)
 Medical Advance..... [115](#)
 Medical School Inspection..... [388](#)

 BOOK REVIEWS
 Aaron, Charles D. Diseases of the
 Stomach [396](#)
 Abbott, Eleanor Hallowell. The
 White Linen Nurse..... [620](#)
 Abbott Laboratories. Biologic Prod-
 ucts [501](#)
 Adam, C. Ophthalmoscopic Diag-
 nosis [397](#)
 Allen, Frederick M. Glycosuria
 and Diabetes..... [556](#)
 American Medicine "Case Record
 Book" [446](#)

 Backus, Mrs. Henry. Career of Dr.
 Weaver [357](#)
 Bacon, Gorham. Manual of Otol-
 ogy [559](#)
 Bateson, W. Mendel's Principles
 of Heredity..... [173](#)
 Battle Creek Sanitarium..... [500](#)
 Bernays, Augustus Charles. Golden
 Rules of Surgery..... [120](#)
 Bigg, G. Sherman. Indigestion, Con-
 stipation and Liver Disorder.... [618](#)
 Bishop, Louis Faugeres. Heart Dis-
 ease [390](#)
 Bohm, Max. Massage..... [503](#)
 Boldman, Charles F. Bacteriology
 for Nurses..... [449](#)
 Braun and Friesner. The Labyrinth [119](#)
 Brill, A. A. Psychanalysis..... [117](#)
 Brooks, Henry T. Text-Book of
 Pathology [55](#)
 Bulkley, L. Duncan. Diet and Hy-
 giene in Disease of the Skin.... [120](#)

 Cables, Henry A. Golden Rules of
 Diagnosis [352](#)
 Carter, Herbert S. Diet Lists of
 Presbyterian Hospital..... [447](#)
 Chicago Medical Directory..... [674](#)
 Clock, Ralph Oakley. Our Baby.. [58](#)
 Coleman, W. Franklin. Electricity
 in Diseases of Eye, etc..... [392](#)
 College of Physicians of Philadel-
 phia: Transactions 1912..... [309](#)
 Collie, Sir John. Malingering and
 Feigned Sickness..... [391](#)
 Collins, Joseph. Sleep and the
 Sleepless [173](#)
 Cooper, J. Astley. Pathological In-
 ebriety [620](#)
 Culbertson, Hugh Emmet. Medical
 Men and the Law..... [120](#)

 De Lee, Joseph B. Principles and
 Practice of Obstetrics..... [116](#)
 Dercum, F. X. Manual of Mental
 Diseases [615](#)
 De Schweinitz, Geo. E. Diseases
 of the Eye..... [447](#)
 De Witt, Katherine. Private Duty
 Nursing [309](#)
 Digest of Comments on Pharmaco-
 pœia of the U. S..... [558](#)
 Dudley, E. C. Principles and Prac-
 tice of Gynecology..... [555](#)

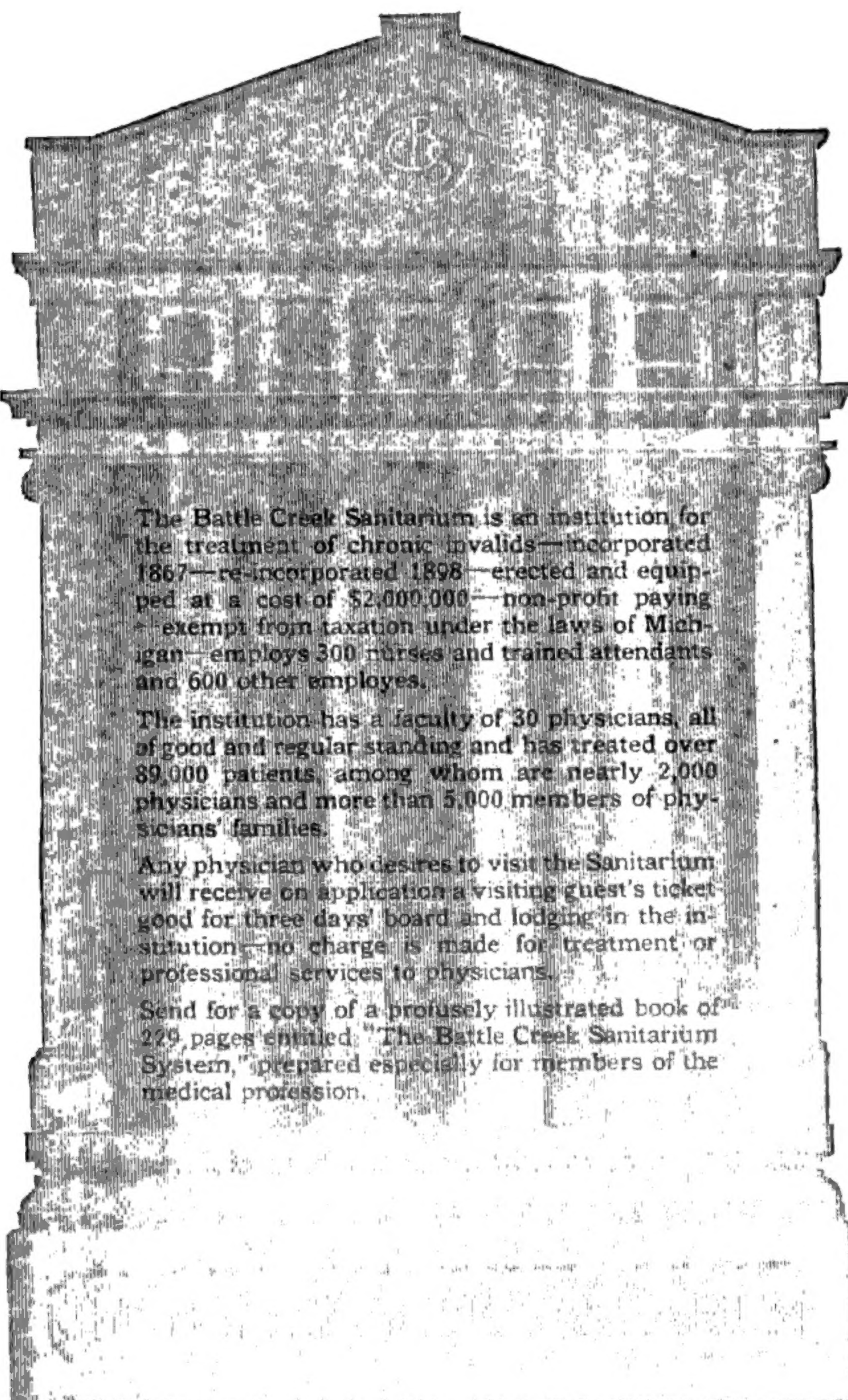
 Dührssen, A. Geburtshilfliches Vade-
 mekum [307](#)
 Edgar, J. Clifton. Practice of Ob-
 stetrics [355](#)
 Eggleston, Cary. Prescription Writ-
 ing [617](#)
 Eugenics Review..... [118](#)
 Eyre, J. W. H. Bacteriological
 Technique [616](#)

- Faught, Francis Ashley. Blood Pressure [442](#)
- Findley, Palmer. Diseases of Women [561](#)
- Fowler, Russel S. Operating Room and Patient..... [309](#)
- Fox, Charles D. Psychopathology of Hysteria [671](#)
- Freeman, Leonard. Skin Grafting. [57](#)
- Friedenwald, Julius. Diet in Health and Disease..... [615](#)
- Gray's Anatomy, Descriptive and Applied[503](#), [616](#)
- Griffis, W. E. Mighty England.... [674](#)
- Guiteras, Ramon. Urology..... [171](#)
- Hare, Hobart Amory, Editor. Modern Treatment..... [170](#)
- Hecker, Friedrich. Pyorrhea Alveolaris [673](#)
- Henson, Graham E. Malaria..... [499](#)
- Heredity and Eugenics. A Course of Lectures by Castle, Coulter, Davenport, East and Tower..... [252](#)
- Hirschman, Louis J. Diseases of the Rectum..... [171](#)
- Hiss, Emil. New Standard Formulary [251](#)
- Hollander, Bernard. First Signs of Insanity [393](#)
- Hornsby, John A., and Schmidt, Richard E. The Modern Hospital. [351](#)
- Huhner, Max. Sterility in the Male and Female..... [393](#)
- Hurry, Jamieson B. Vicious Circles in Disease..... [500](#)
- Johnstone, R. W. Text-Book of Midwifery [448](#)
- Keen's Surgery. Volume VI..... [254](#)
- Kellogg, J. H. Battle Creek Sanitarium [500](#)
- Krause, Rudolf. Normal Histology [394](#)
- Lang's German-English Dictionary. [502](#)
- Lockwood, George R. Diseases of the Stomach..... [390](#)
- Lorand, Arnold. Health and Longevity Through Rational Diet... [56](#)
- Macfarlane, Catherine. Gynecology for Nurses..... [504](#)
- Manton, W. P. Obstetrics..... [557](#)
- Manual for Writers. Manley and Powell [672](#)
- McCurdy, Stewart L. Anatomy and Dissector in Abstract..... [674](#)
- McKisack, H. L. Systematic Case-taking [255](#)
- Men, Manners and Medicine. By Medicus Peregrinus..... [356](#)
- Minett, E. P. Diagnosis of Bacteria and Blood Parasites..... [617](#)
- Mitchell, E. V. The Doctor in Court. [558](#)
- Mitchell, S. Weir. Westways..... [619](#)
- Modern Treatment. Edited by Hobart A. Hare..... [170](#)
- Moll, Albert. Sexual Life of the Child [357](#)
- Morse, John Lovett. Case Histories in Pediatrics [670](#)
- Morton, H. H. Genito-Urinary Diseases and Syphilis..... [56](#)
- Mosby, Thomas Speed. Causes and Cures of Crime..... [673](#)
- Murphy, J. B. Surgical Clinics....
.....[174](#), [122](#), [353](#), [501](#)
- Musser, John H. Medical Diagnosis [614](#)
- Nervous and Mental Diseases. Edited by William White and Smith Ely Jelliff.....[305](#), [498](#)
- Norberg, Geo. B. Golden Rules of Gynecology [356](#)
- Norris, Charles C. Gonorrhea in Women [499](#)
- Osler, Sir William. Principles and Practice of Medicine..... [307](#)
- Osler, Sir William, and McCrae, Thomas. Modern Medicine..... [669](#)
- Paterson, Herbert J. Surgery of the Stomach..... [308](#)
- Petty, George E. Narcotic Drug Diseases and Allied Ailments.... [352](#)
- Pitfield, Robert L. Compend on Bacteriology [502](#)
- Portner, Ernst. Genito-Urinary Diagnosis and Therapy..... [448](#)
- Pottenger, F. M. Tuberculin in Diagnosis and Treatment..... [254](#)
- Potts, Charles S. Nervous and Mental Diseases..... [250](#)
- Price, Geo. M. Hygiene and Sanitation [444](#)
- Progressive Medicine...[58](#), [357](#), [445](#), [560](#)
- Reed, Thomas E. Sex, Its Origin and Determination..... [395](#)

- Reik, Henry O. Safeguarding the Special Senses..... [121](#)
- Reilly, Thomas F. Building a Profitable Practice..... [671](#)
- Robinson, Victor. Pathfinders in Medicine [57](#)
- Robinson, William J. Sexual Impotence [557](#)
- Roemer, Paul. Text-Book of Ophthalmology [172](#)
- Root, A. [L](#) and E. R. The "A, B, C and X, Y, Z" of Bee Culture.. [394](#)
- Schamberg, Jay F. Diseases of the Skin [621](#)
- Schmidt, Rudolph. Malignant Tumors of the Abdominal Viscera. [555](#)
- Schorer, Edwin Henry. Vaccine and Serum Therapy..... [353](#)
- Schroeder, Henry [H](#). Insurance Medicine [307](#)
- Sharp, Walter N. Ophthalmology for Veterinarians..... [309](#)
- Simon, Charles E. Infection and Immunity [559](#)
- Smallwood, William Marting. Biology [444](#)
- Sophian, Abraham. Epidemic Cerebrospinal Meningitis..... [252](#)
- Starr, M. Allen. Organic and Functional Nervous Diseases..... [253](#)
- Stenhouse, John. Pathology..... [618](#)
- St. Mary's Hospital Staff, Collected Papers for 1912..... [446](#)
- Surgeon General of the Public Health Service, Annual Report.. [251](#)
- Thompson, Sir Henry. Diet in Relation to Age and Activity..... [450](#)
- Török, Ervin, and Grout, Gerald [H](#). Surgery of the Eye..... [350](#)
- Tuley, Henry Enos. Diseases of Children [561](#)
- Tweddell, Francis. How to Take Care of the Baby..... [618](#)
- Webster, Ralph W. Diagnostic Methods [450](#)
- Wegele, Carl, Therapeutics of the Gastro-Intestinal Tract..... [396](#)
- Wharton, [H](#). R. Minor and Operative Surgery..... [560](#)
- White, William A., and Jelliffe, Smith Ely. Nervous and Mental Diseases [305](#), [498](#)
- Wickham, Louis, and Degrais, Paul. Radium and Cancer..... [619](#)
- Williams, B. G. R. Laboratory Methods [445](#)
- Winslow, L. Forbes. Insanity of Passion and Crime..... [354](#)
- Wright, Sir Almroth. Unexpurgated Case Against Woman Suffrage [672](#)
- Wright, Wilhelmine G. Muscle Training in Treatment of Infantile Paralysis..... [174](#)

OBITUARIES

- Dr. James A. Egan..... [379](#)
- Dr. John Guerin..... [47](#)
- Medico-Legal [495](#), [549](#)
- News Items..... [59](#), [123](#), [175](#), [256](#), [310](#), [358](#), [403](#), [454](#), [504](#), [562](#), [622](#), [680](#)



The Battle Creek Sanitarium is an institution for the treatment of chronic invalids—incorporated 1867—re-incorporated 1898—erected and equipped at a cost of \$2,000,000—non-profit paying—exempt from taxation under the laws of Michigan—employs 300 nurses and trained attendants and 600 other employees.

The institution has a faculty of 30 physicians, all of good and regular standing and has treated over 89,000 patients, among whom are nearly 2,000 physicians and more than 5,000 members of physicians' families.

Any physician who desires to visit the Sanitarium will receive on application a visiting guest's ticket good for three days' board and lodging in the institution—no charge is made for treatment or professional services to physicians.

Send for a copy of a profusely illustrated book of 229 pages entitled "The Battle Creek Sanitarium System," prepared especially for members of the medical profession.

An Important Report

By Professor W. A. Puckner

Secretary of the Council on Pharmacy and Chemistry
American Medical Association

In the Journal of the American Medical Association, September 13, 1913, Professor Puckner reports the result of the investigation of products of a number of pharmaceutical houses. In this report are embodied the results obtained by Dr. R. A. Hatcher, of Cornell University Medical School, who made a special examination of the various digitalis products of these pharmaceutical houses, demonstrating the following

FACTS

First.—That commercial digitalis preparations vary most widely in activity.

Second.—That Mulford Digitalis, the most active, is four times as active as the weakest.

Third.—That the digitalis prepared by other firms, assumed to be physiologically assayed, showed a variation of more than 100 per cent in strength.

Fourth.—That the digitalis next in strength to the Mulford preparation, was only 65 per cent, and the weakest, 29 per cent in activity.

CONCLUSIONS

While there is no official standard of activity for digitalis, Dr. Hatcher adopted the Mulford Fluidextract Digitalis as the standard of comparison, because its activity was that of a good digitalis. The report proves the activity and reliability of the Mulford Digitalis, and coincides with the former report made by the United States Bureau of Hygiene, tabulated in Bulletin No. 48, December, 1908, by Edmunds and Hale, relating to the Mulford Fat-free Tincture of Digitalis—**Digitol**.

No arguments are needed to convince the careful physician and druggist why they should demand Mulford Standardized Pharmaceuticals.

H. K. MULFORD COMPANY

Pharmaceutical and Biological Chemists

PHILADELPHIA

New York	Boston	Kansas City	St. Louis	New Orleans	San Francisco
Chicago	Atlanta	Dallas	Seattle	Minneapolis	Toronto

